



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(54) Title: SYSTEM AND METHOD FOR TRANSACTION ENABLED ADVERTISING</b> <b>(54) Titre: SYSTEME ET PROCEDE DE PUBLICITE PERMETTANT UNE TRANSACTION</b>		
<b>(57) Abstract</b> <p>A transaction enabled advertising system (10) includes an advertisement database (43) for storing ads, and a web server (26) operatively connected to a browser (12) for receiving user characteristics from the browser (12), for causing a display of a first ad having GUI responsiveness, from the ad database (43) corresponding to the user characteristics to provide targeted ad delivery, and for receiving user inputs to actuate the GUI-responsive ad to engage in and complete an E-commerce transaction corresponding to the ad. The web server (26) dynamically targets the first ad corresponding to the user characteristics, and may include a neural network (40) for selecting the corresponding first ad to be displayed to the user. The web server (26) displays the first ad on the browser (12) whenever the user is viewing a predetermined webpage associated with the first ad. The transaction may be conducted using a user-selected currency.</p> <p><b>(57) Abrégé</b></p> <p>L'invention concerne un système publicitaire (10) permettant une transaction, qui comprend une base de données (43) publicitaires destinée à stocker des annonces publicitaires, et un serveur Web (26) relié fonctionnellement à un explorateur (12). Ledit serveur Web permet de recevoir des caractéristiques utilisateur depuis ledit explorateur (12), afin d'afficher une première annonce publicitaire présentant une rapidité de réaction d'interface utilisateur graphique (GUI), provenant de la base de données (43) d'annonces publicitaires correspondant aux caractéristiques utilisateur, de distribuer des annonces publicitaires, et de recevoir des entrées utilisateur destinées à activer la rapidité de réaction d'interface utilisateur graphique permettant de lancer et d'exécuter une transaction de commerce électronique correspondant à l'annonce publicitaire. Le serveur Web (26) cible dynamiquement la première annonce publicitaire correspondant aux caractéristiques utilisateur, et peut comprendre un réseau neural (40) destiné à sélectionner la première annonce publicitaire correspondante à afficher pour l'utilisateur. Ce serveur Web (26) affiche la première annonce publicitaire sur l'explorateur (12) lorsque l'utilisateur visualise une page Web déterminée associée à la première annonce publicitaire. La transaction peut être exécutée au moyen d'une monnaie sélectionnée par l'utilisateur.</p>		



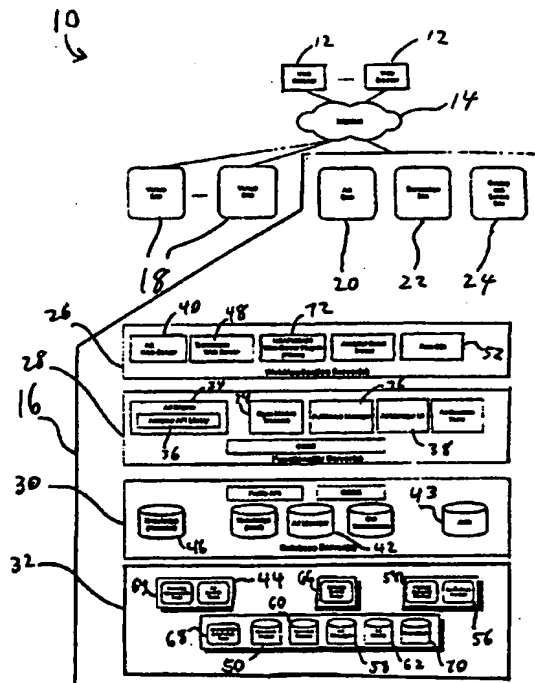
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**(54) Title: SYSTEM AND METHOD FOR TRANSACTION ENABLED ADVERTISING**

**(57) Abstract**

A transaction enabled advertising system (10) includes an advertisement database (43) for storing ads, and a web server (26) operatively connected to a browser (12) for receiving user characteristics from the browser (12), for causing a display of a first ad having GUI responsiveness, from the ad database (43) corresponding to the user characteristics to provide targeted ad delivery, and for receiving user inputs to actuate the GUI-responsive ad to engage in and complete an E-commerce transaction corresponding to the ad. The web server (26) dynamically targets the first ad corresponding to the user characteristics, and may include a neural network (40) for selecting the corresponding first ad to be displayed to the user. The web server (26) displays the first ad on the browser (12) whenever the user is viewing a predetermined webpage associated with the first ad. The transaction may be conducted using a user-selected currency.



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**Description**

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SYSTEM AND METHOD FOR  
TRANSACTION ENABLED ADVERTISING

BACKGROUND OF THE INVENTION

5 This disclosure is directed to electronic commerce, and in particular to a  
system and method for conducting transactions using transaction enabled advertising  
and integrated electronic commerce services.

Advertising is one of the two main sources of revenue for owners of Internet  
10 websites. Total revenue is projected to grow exponentially over the next few years,  
as indicated by all industry commentators, including Gartner, Jupiter  
Communications and Forrester. The compound annual growth rate for the on-line  
advertising market is projected to be 72 % per annum between 1996 and 2002,  
according to Jupiter Communications, compared to an annual growth rate of 6 % in  
15 the advertising industry as a whole. These projections are supported by actual  
results in the last two years, as on-line revenue has grown in line with or exceeded  
projections.

There has also been a shift in the type of companies advertising on-line.  
Initially spending has been dominated by technology companies but increasingly,  
20 more mainstream consumer goods companies are allocating budgets to Internet  
advertising. For example, Volvo spent \$ 1 million on-line out of a total campaign  
budget of \$ 13 million during 1997, according to Jupiter Communications, 1998  
Online Advertising Report, p.107.

Despite these positive indicators, there is still significant scope for  
25 improvement, since on-line advertising is at present almost entirely focused on  
promoting brand, or raising customer awareness of websites. It does little to exploit  
the interactive capabilities of the Internet.

5           The majority of on-line advertising space is unsold. Estimates vary, but it is  
estimated by analysts such as Jupiter that only 10 % - 20 % of space is sold. Even  
the most popular websites have significant volumes of unsold space.

10           Solutions that effectively exploit the potential of interactivity are therefore  
5 likely to find ready audiences in both websites and advertisers.

          The second major source of revenue for Internet websites is transactions.  
15           There has been a lot of media comment about on-line transactions, but volumes have  
been held back by a number of factors, including lack of confidence in security, and  
lack of products for sale. Most websites are marketing-focused, providing  
20           information without transaction capability.

          The physical security of transactions has been addressed through the wide  
spread adoption of Secure Socket Layer (SSL). As a result, confidence is now  
25           growing in the security and reliability of on-line transactions, and more websites  
include transaction capability. As a result, there are increasing numbers and types of  
15           purchases on-line, for example, Dell was at one time taking \$ 5 million to \$ 10  
million per day in on-line orders, up from \$ 1 million per day at the end of 1996,  
30           while Netscape launched commerce services on its website in 1997, earning \$ 100  
million on these services during the year, of which \$ 56 million was in the fourth  
35           quarter of 1997. Volumes continue to climb rapidly, and projections for business-to-  
20           consumer and business-to-business transactions are expected to be an order of  
magnitude greater than consumer transactions in the next few years.

40           To date, Internet advertising has been viewed as being of minor strategic  
importance by traditional advertising agencies. Hence, although these companies  
are key players in the off-line advertising marketplace, they have been slow to react  
45           25 to the on-line opportunity. The on-line advertising and transaction markets are still  
maturing. Robust solutions and business models have not yet emerged, although,

5 given the changes discussed above, it is expected that they will emerge within a relatively short timescale.

10 Two start up companies, ImpulseBuy and Enliven, have announced early versions of transaction enabled advertising software. These are still in early test  
5 versions, and are only aiming to provide a partial transaction service for vendors. In particular, ImpulseBuy and Enliven are merely order takers, which serve ads, collect  
15 customer details, and seek authorization for credit card payment, but then pass the order to the vendor, who is responsible for all the follow-up work including processing the payment, arranging deliveries, and handling customer queries.

#### 20 10 SUMMARY

25 An object of the invention is to develop a new electronic commerce business with a major infrastructure service to deliver transaction enabled advertising, an opportunity which requires modest investment, with rapid payback, has significant  
15 profit potential, and carries relatively low risk.

30 Another object is to build a scaleable and defensible Transaction Enabled Advertising infrastructure.

35 A further object is to develop a leading advertising and transaction infrastructure service which supports:

20 purchasers buying goods on-line within the confines of a small window on a webpage;

40 vendors selling products on-line with no or very limited up front investment; and

45 website owners generating additional ad revenue whilst increasing the  
25 retention of customers on their site.

Another object is to generate large transaction volumes.

5 A further object is to gather, analyze and exploit the transaction and customer data which result from product sales.

10 The invention is directed to a leading edge, complete computer-based electronic transaction outsource service system and method, which supports:  
5 consumers buying goods and services, vendors selling goods and services on-line, websites generating ad revenue while retaining customers, an infrastructure  
15 extensible into other types of applications, well-targeted ads with a high conversion rate to sales, rapidly produced and easy to understand management information, topical and/or timely product offerings, and well-priced offerings.

20 10 The invention has advantages in that it significantly improves upon what is currently available in the marketplace; provides a leading edge technology infrastructure; improves upon process/technology over time; gets high volumes  
25 quickly; leverages existing business relationships for ad space, e.g. GEOCITIES, LYCOS; builds an E-commerce brand through repeated exposure; provides topical  
15 and timely product offerings; provides high ease of use for consumers; has the ability to complete transaction without leaving a current webpage; provides  
30 membership service for "one click" or "one- click + PIN" purchases; manages the fulfillment and return processes in a relatively painless manner; provides a trusted  
35 payment mechanism; offers a responsive help desk facility; and creates a learning system which tests and learns approaches for continuous improvement in program  
20 performance, and potentially leverages existing database technology including the ENGAGE database system.

40 Using the invention, a company can build strong distributor and vendor relationships covering a wide range of products and services, and have the ability to  
45 25 narrowly target ads with a high conversion rate, and also have the flexibility for engaging vendors with the ability to change offers/pricing, as well as 24x7 infrastructure/quick response time to enhance site reputation/credibility. A company



5 is thus able to provide sites with accurate and timely information about how much  
the company is earning, provide strong consumer service to help build and maintain  
brand image, provide information on the progress of purchase available, and support  
10 strong relationship with fulfillment agent and vendors.

5 A new electronic commerce system is disclosed for providing transaction  
processing services to the on-line marketplace, initially focusing on the transaction  
enabled advertising (TEA) market. Transaction processing can be thought of as a  
15 "buy button" service, which presents offers, processes orders, and handles tracking  
inquiries on behalf of a third party. Payment services through a third-party merchant  
service provider such as through NatWest Card Services is also provided.  
20

The Transaction Enabled Advertising (TEA) business fits centrally within  
electronic payment systems. It is an effective electronic commerce system in its  
25 own right, and establishes on-line payments relationships with major vendors.

In implementing the disclosed TEA system, the TEA system includes an  
15 advertisement (ad) database for storing a plurality of ads, and a web server  
operatively connected to a browser of a user for receiving user characteristics data  
from the browser, for causing a display of a first ad having graphic user interface  
(GUI) responsiveness, from the ad database corresponding to the user characteristics  
35 to provide targeted ad delivery, and for receiving user inputs to actuate the GUI-  
responsive ad to engage in and to complete an E-commerce transaction  
20 corresponding to the ad.

The web server includes means, responsive to the user characteristics, for  
40 dynamically targeting the first ad corresponding to the user characteristics to be  
displayed to the user through the browser, and the dynamic targeting means may  
include a neural network, trained using a plurality of user characteristics of a  
45 plurality of registered users, including user buying histories and user profiles and  
interests, for selecting the corresponding first ad to be displayed to the user. The  
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5 web server displays the first ad on the browser whenever the user is viewing a  
predetermined webpage associated with the first ad. The first ad may provide E-  
commerce functionality associated with the content of the predetermined webpage  
10 regardless of the ability or inability of the predetermined webpage to offer such E-  
commerce functionality. The predetermined webpage may be an on-line catalog;  
5 and the first ad is an entry displayed in the on-line catalog. The first ad may also  
correspond to a first product, and the predetermined webpage corresponds to a  
15 second product, thereby co-branding the first and second products through the  
pairing of the first ad and the predetermined webpage.

20 10 The web server includes means for receiving a currency selection from the  
user; and means for engaging in and completing the E-commerce transaction using  
monetary values in the selected currency. The ad database includes promotional  
25 offers, including a first offer associated with the first ad; and the web server includes  
E-mail means for generating E-mail messages to an entity associated with the user to  
15 convey the first offer thereto. The entity associated with the user may actually be  
the user, or may be a friend of the user specified by the user. The E-mail messages  
30 sent to the entity include information about the first offer for later review by the  
entity at the E-mail address to which the E-mail messages are sent.

35 The browser operates on any computing device executing application  
20 software implementing the browser and connecting the browser to the web server.

40 Supply-chain management modules may be operatively connected to the web  
server for implementing and managing the E-commerce transactions executed  
through the first ad displayed on the browser. A database of revenue values is  
included and associated with the ads stored in the database, and the dynamic  
45 25 targeting means includes means, responsive to the revenue value database, for  
selecting the first ad from the ad database to be displayed to the user, with the first  
ad corresponding to user characteristics with maximum revenue realization potential.

5 A real-time inventory management module is included for mirroring supplier  
systems providing the product for the E-commerce transaction.

10 A product source database and means for tracking are included for tracking  
the products purchased in the E-commerce transaction to follow product sourcing  
5 configurations for tiered supply pricing. A modular data structure is also included  
for storing data corresponding to different E-commerce partners in a supply chain;  
15 and means for revising the modular data structure is used to selectively replace E-  
commerce partners. Means is also included for dynamically generating pricing for  
offers provided through the first ad displayed to the user.

20 10 Reporting means is provided to track and report financial performance of the  
ads in the ad database involved in the E-commerce transaction, and may include an  
extranet available to partners of the E-commerce system. A database of offers is  
25 used forming an outgoing portfolio, with the web server displaying only ads  
corresponding to offers in the outgoing portfolio; and means is provided for  
15 dynamically, in real-time, evaluating the offers in the offer database, and for  
removing offers from the outgoing portfolio of offers which fail to meet a  
30 predetermined criteria.

35 The predetermined criteria includes a predetermined minimum threshold of  
profitability of offers, and may include a threshold of available stock of products  
20 associated with offers. Also included is a database of prices associated with  
products corresponding to the ads in the ad database; and means for dynamically  
40 adjusting the pricing of products over time and for learning consumer pricing  
sensitivity to such price adjustments.

45 25 A payment sub-system is provided for effecting payment of the completed E-  
commerce transaction. The payment sub-system includes means for dynamically  
calculating respective monetary values accrued to each party in a supply chain  
50 associated with the completed E-commerce transaction. The monetary values may

5 be in multiple currencies. The payment sub-system includes automated  
disbursement means for distributing the respective monetary values to each party in  
the supply chain. The respective monetary values are collated on an individual  
10 transaction basis for each product associated with the completed E-commerce  
5 transaction, and value distributed on a timely basis and delivered to each user in the  
E-commerce transaction. The respective monetary values may include.  
15 micropayments.

The payment sub-system includes revenue projection means for determining  
anticipated revenue of the E-commerce transaction on a real-time basis, and revenue  
20 determining means for determining accruals on settlement of the completed E-  
10 commerce transaction.

Using the disclosed system, a front-end offer targeting, delivery and buying  
25 process is implemented with dynamic targeting using real-time smart targeting via  
neural nets etc., leveraging past buying behavior information and consumer interests.

15 Benefits include a more effectively targeted offer which yields a better response rate  
and higher financial return. These benefits are shared amongst all parties in the  
supply chain. In use, pop-up ads do not leave the website, and banner ads lead to  
30 database-driven offers in a daughter window, so that the consumer does not leave the  
website. The advantage over affiliate programs as "venues" is that the referring site  
35 does not lose the consumer from that site in order to make the purchase.  
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Contextual selling delivery is provided, with the ability to offer E-commerce  
40 functionality linked to the context, editorial content, or other text on a webpage,  
even without that site itself offering E-commerce functionality, that is, the ability to  
deliver transactional offers within third-party websites.

45 25 An on-line catalog/E-commerce enablement of sites is provided, with the  
ability to enable transactions from a catalog site. The main benefit is that no  
commerce technology is required on the site that is promoting the commerce. The  
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5 unique value is therefore that it is a very easy way for a third party to get involved in  
web commerce.

10 The system has the ability to price in the preferred currency of a consumer,  
and the ability to co-brand; that is, to leverage products across multiple virtual  
5 stores, and thereby decouple the retail branding from the product. Functionality to  
individualize pages, depending on retail partners selling goods, is provided, as well  
15 as the ability to E-mail offers to oneself and one's friends. Products offered within  
transaction enabled windows or in the context of editorial can be E-mailed to be  
reviewed later, and may be mailed to any E-mail address, which benefit in that  
20 someone may wish to defer purchasing, and this E-mail ability allows the user to  
take the offer home, or to refer it to a friend.

25 The system may be device independent, supporting phones, pagers, web  
devices, kiosks, digital TV, PDAs, handhelds, and/or any IP device. The benefits of  
device independence include avoiding predictions of market-successful devices, and  
15 instead to be poised to take advantage of market trends in technology and device  
usage.

30 Virtual supply chain management is also supported, with supply chain-driven  
campaign management having the ability for the system to present orders with data  
35 of the highest revenue potential. Targeting from the ENGAGE software is coupled  
20 with propensity of customers to purchase and inherent product profitability data.  
Real-time inventory management mirrors supplier systems in microcosm, and the  
40 system includes the ability to follow product sourcing configurations such that tiered  
supply pricing, such as for bulk purchasing, is accommodated.

45 Modular supply chain data structures are provided which enable different  
25 parts of the supply chain to be replaced by the most competitive partners; that is, the  
ability is provided to decouple products from the product source.

5 Dynamically generated pricing for fixed time offers is also provided, and  
overall the benefits of such pricing include the ability to modularly include supply  
chain partners in various roles for later dynamic selection for the fulfillment of  
10 consumer orders in the most profitable way possible. Via dynamic multi-sourcing,  
5 the system can achieve the highest profit potential; for example, an offer is accepted,  
and there are various ways to supply it, so the system has the ability to run the  
15 scenarios and determine the best way to supply the system. The system is flexible  
enough to discontinue serving an offer if there is insufficient profit.

An integrated offer/inventory/transaction/reporting system is also provided  
20 for effectively managing the incoming impression request portfolio, for leveraging a  
certain number of impression requests, and for deciding on the best way to utilize  
them. There is also the ability to tie financial performance to all outgoing offers and  
25 to maximize return on offers. There is integration of the different components to  
effect creative treatment of a specific offer at a specific price linked to a customer  
15 interest category.

30 The system also supports extranet reporting available to partners, and also  
the ability to dynamically, in real-time, remove out-of-stock or unprofitable offers  
from the outgoing portfolio of offers, which dynamically helps to maximize profits  
35 on the offer portfolio. Dynamically generated pricing provides the ability for the  
20 system to dynamically move pricing over time to learn consumer pricing sensitivity.  
The system has the ability to do this automatically, and so learns how to maximize  
40 profit/revenue on a particular product.

Payment and disbursement functionality is also provided to dynamically  
calculate income accrued to each party in the supply chain, and to pay them to bank  
45 accounts through an automated disbursement function, including multi-currency  
25 supply chain capability. On a real-time basis, the system pays per unit delivered to a  
consumer for the services and supplies rendered by all members of the supply chain,  
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5 and make this information available; that is, the ability to make micropayments to all  
supply chain members as revenue comes in from credit card settlements. The  
system also shows the anticipated revenue on a real-time basis, and shows what  
10 accrues on settlement.

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#### BRIEF DESCRIPTION OF THE DRAWINGS

15 FIG. 1 illustrates the disclosed transaction enabled advertising (TEA) system;  
FIG. 2 illustrates a portion the system of FIG. 1 with connections between  
components;  
20 FIG. 3 illustrates example hardware components of the system of FIG. 1;  
FIG. 4 illustrates the operational flow between the system of FIG. 1 and  
external entities;  
25 FIG. 5 illustrates a webpage displaying a TEA associated with content;  
FIG. 6 illustrates an alternative webpage displaying a TEA in an ad banner;  
15 FIG. 7 illustrates the webpage of FIG. 6 with a pop-up menu for  
implementing the TEA;  
30 FIG. 8 illustrates a transaction completion screen;  
FIG. 9 illustrates an electronic receipt;  
35 FIG. 10 illustrates an AdManager control screen;  
20 FIG. 11 illustrates a campaign input screen; and  
FIG. 12 illustrates a system monitor screen.  
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#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

45 As shown in FIGS. 1-4, the disclosed transaction enabled advertising (TEA)  
25 system 10 provides an outsourced transaction processing service for vendors and  
websites. The TEA system 10 acts as an intermediary for the purposes of processing  
and information services.  
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## TERMS AND DEFINITIONS

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The following terms and definitions are used herein to describe examples of the components, elements, and features of the disclosed TEA system 10.

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An ad/advert/advertisement is an item or piece of content, for example, information available on the Internet such as text, graphics, GIF, JPEG, shockwave, button, etc. which is delivered to a viewer in order to influence behavior, specifically buying behavior.

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A campaign is an advertising initiative that the TEA system 10 runs for a product, or a logical group of products, such as the New York Times Bestseller list, which places ads on venues, for example, transactional enabled in the TEA system 10, and which selects various strategies and tracks success.

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A Click-Through/Click-Into, Click-In, Click-Buy event is an event or occurrence which happens and can be recorded when a visitor clicks or actuates an advertisement.

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A consumer is an individual who has either clicked through, purchased or registered in the system 10.

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A cookie is a feature of web browsers which allows sites to place a data structure on a user's computer to store various types of client state information. This feature enables ENGAGE tracking, for example.

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The cost per thousand (CPM) refers to an amount which an advertiser is willing to pay to achieve 1000 impressions with his/her advertisement. An effective CPM is a measure, in a shared profit or shared revenue model, in which the advertising venue is paid based on the sales success of an advertisement. The effective CPM is the amount which the venue receives statistically per 1000 impressions. For example, if 1,000 ads run, and there are five sales, and each sale is worth \$ 100, assuming a venue cut of 2 %, the effective CPM is \$ 10. This may be

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5 the most important metric used in gauging campaign success and partner willingness to continue participation.

10 A fulfiller or fulfillment provider is a partner which has the capability of accepting requests for fulfillment; that is, an order to be shipped to a consumer. A  
5 fulfiller "picks, packs and ships"; that is, it assembles products for an order, puts them in a box for shipment and hands them off to a shipper. In the TEA system 10  
15 business model, fulfillers may have to take a feed of orders from the TEA system 10 website and provide acknowledgments and other status messages, including shipment tracking information.

20 10 An impression is an event which happens when a person browsing the web views an advertisement. A venue counts impressions as "ads served". Note: "impressions" is a general advertising term, also used in other media such as  
25 television.

Ingram Micro is a wholesaler having the ability to supply a large number of  
15 products as well as to self-fulfill.

30 A member is a consumer who has registered with the TEA system 10, and is then able to participate in any future loyalty programs, use the "One-Click" features, have an order information pre-populated or filled into an input window of a GUI, use  
35 self-serve customer service without an order number, etc.

20 A merchant is an entity which sells the product and receives the credit card payment.

40 A partner is an entity which may be one or more of the following: payment providers, venues, suppliers, fulfillment providers, shippers, wholesalers, vendors, etc. These are the outsourced business partners in the TEA system 10 value chain.

45 25 A payment processor is an entity, usually a bank, which processes credit card charges for a merchant. In the TEA system 10 example, payment processors may

5 have a live connection to the TEA system 10 transaction processing software in order to execute approvals and charges in real-time.

10 A shipper is a partner which accepts individual shipments for consumers from a fulfillment provider and delivers them to consumers, as well as providing  
5 tracking information.

15 A supplier is a general term for a partner which provides products to the TEA system 10 supply chain.

A vendor is a product supplier which produces products and does not have fulfillment capabilities.

20 10 A venue is entity, such as a website, which attracts visitors, by which advertisements may be hosted, and venues also generate impressions. Venues typically sell ad space. In the web example, the venue actually places a call or other  
25 messaging communications to the advertiser's ad in the content served to the visitor.

15 A visitor identifier (VID) is an identifier which is used by ENGAGE to track consumers anonymously from HTTP transaction to HTTP transaction. It is planted  
30 in a cookie on the consumer's browser. A visitor is any person who sees content provided from the TEA system 10 through the TEAs. A wholesaler is supplier which generally does not manufacture its own products, but rather aggregates  
35 products from multiple suppliers. These entities may have their own fulfillment  
20 capability

## 40 ARCHITECTURE

The TEA system 10 shown in FIGS. 1-4 addresses different aspects of the E-commerce business model, in which there is a different value proposition for each  
45 25 target audience. For example, consumers generally instantly buy with confidence those products which are delivered promptly. A benefit to customers through the system 10 is the consumers' ability to buy products and services with a simple "one  
50

5 click" feature. The order process is not an arduous task requiring the input of  
repetitive information, such as name, address, etc. As shown in FIG. 1, consumers  
may have access to the system 10 through their browsers 12 and thence through the  
10 Internet 14 using a TEA website on the TEA web server 16, which is generally  
5 available 24 hours a day, 7 days a week.

Through the TEA website, consumers may be able to check order status,  
15 make changes to orders and registration information, and browse an available  
product catalog at each individual consumer's respective convenience. Accordingly,  
the consumers are less dependent on the time and knowledge of a customer service  
20 10 representative.

Through the system 10, consumers may receive advertisements tailored to  
their interests, and so consumers are no longer inundated with advertisements that  
25 are of no value to them. Rather, consumers may perceive the banner ads as "relevant  
information" and not merely "annoying banner ads".

15 In turn, through the system 10, vendors may engage in selling incremental  
stock through a well-integrated E-commerce system provided by the system 10, so  
30 vendors have an additional channel to sell products and services to targeted  
consumers. Venues may sell advertising space and generate increasing revenues  
35 from product sales, and so benefit by being able to profit from banner space that  
20 would have gone unsold via a revenue sharing model.

Referring to FIG. 1, a general system architecture of the TEA system 10 is  
40 shown, in which users or consumers utilizing their web browsers 12 to access  
websites through the Internet 14, including websites 18 corresponding to specific  
venue sites of venue partners of the system 10. Webpages served by venue sites 18  
45 25 contain TEAs that in turn are served by the ad site 20 stored in the web server 16 of  
the system 10 and accessible through the Internet 14. Consumers view both sites 18,  
20 through their browsers, while click-throughs and other transaction processing are

5 directed to the transaction site 22 of the web server 16, resulting in an on-line  
transaction session. In addition, a catalog and service site 24 of the web server 16  
10 provides on-line customer service to consumers, and also serves webpages with  
TEAs.

5 The components 20-24 included in the TEA system 10 collaborate with the  
venue sites 18, consumers' browsers 12, and external systems described herein such  
15 as payment processors, fulfillment systems, etc., as well as each other to provide the  
TEA services and functions described herein, and to maintain the information  
necessary to support the E-commerce business for conducting E-commerce  
20 10 transactions and TEA processing.

The TEA system web server 16 includes web/application servers 26,  
functionality servers 28, database servers 30, and other servers and databases 32.  
25 The TEA system 10 integrates multiple software applications, including Accipiter's  
AdManager application as ad-serving software; TRANSACT application software  
15 commercially available from Open Market, a Massachusetts company for capturing  
30 user information, for verifying credit card transactions, and for passing secure  
information between entities; and ENGAGE application software commercially  
available from the CMGI Group, for tracking the behavior of computers, and  
35 anonymously building a profile of a user using the computer and browsers 12.

20 In particular, AdManager, or AdServer, serves a banner ad onto the webpage,  
pulling the graphics across, etc. AdManager has ads parked and available to be  
40 accessed to run on various sites. Each ad has certain parameters, such as to only run  
on travel sites, implemented by rules controlled by and programmed by the system  
administrator. In addition, ENGAGE is used to track users at websites for ad  
45 25 targeting by AdManager, in which cookie technology is used to serve specific  
banners to browsers according to which offers the user would be likely to respond to.

5           The first major function of the system 10 is to display or serve an ad to the  
consumer who is browsing a venue website 18. The determination of what ad to be  
10           served is based on one or more factors/criteria of the user profile, including criteria  
such as who the consumer is, what s/he is doing, where s/he is and/or when s/he is  
5           browsing the World Wide Web and other Internet sites. There is substantial  
processing from the time the web browser 12 requests an ad while loading a page to  
15           the time the ad is served. AdManager supports this functionality. Additionally  
supported is the customizing of some components such as writing C/C++ wrappers  
around the existing API library supplied with AdManager.

20           10           The second major function is processing a transaction after a consumer clicks  
an ad through the browser 12 to buy an offered product, and submitting the order.  
TRANSACTION handles this functionality, which can be more than processing an order;  
25           for example, it can include maintaining the user profile and changing/validating user  
names and passwords.

15           The TEA system 10 supports the delivery of advertisements on venues  
30           webpages and sites 18, including AdEngine 34 including an Accipiter API library 36  
which serves ads, manages visitor ad sessions, and also controls the number of  
clicks, and impressions served on the webpage. Based on the load requirements,  
35           multiple AdEngines may be used. In addition, an AdManager user interface (UI)  
20           tool 38 enables the user to configure the AdManager and its corresponding Ad web  
server 40 to schedule campaigns and to view reports of all ad-related statistics.

40           AdManager Tables database 42 stores data about the scheduled ads, about  
visitors, and about target information related to the AdManager, and may include or  
may be independent of the ad database 43. AdManager filters may be included in  
45           25           Ad content tools 44 and are optional to the CGI clients to make the web server more  
efficient in dealing with the AdEngine.

5           ENGAGE utilizes the data generated by any website to realize the full  
potential of that website. Engage.Knowledge is a product that provides access to the  
world's largest database 46 of behavior-based profiles of anonymous website  
10 visitors. By accessing this database 46, companies such as the TEA system 10 can  
5 use multi-site interest profiles of their website visitors for use in real-time  
personalization applications and targeted ad serving.

15           This large database of anonymous user profiles, which may also be accessed  
by a consumer profile tool 50 through the web, delivers information about  
anonymous users. This product helps in marketing across a broad range of  
20 consumers. First time visitors profiles can be created using Engage.Knowledge.  
Visitor profiles can be leveraged on a single website. It can support up to 70 million  
individual page views per day. Web visitors can also maintain anonymous profiles.

25           OpenMarket's TRANSACT is widely used for transaction processing, and  
order management, and as customer service software for Internet commerce.

15           TRANSACT is used for handling the transaction web server 48 of the TEA system  
30 10. The main features/functionality of TRANSACT include: buyer authentication,  
real-time authorization and payment processing, secure order processing, automated  
tax and shipment cost calculation, fulfillment APIs, buyer self-service, on-line  
35 customer service, and reporting, proofing and analysis. These operations may be  
20 implemented using a transaction server, a settlement server, a subscription server, a  
log server, and other database servers.

40           The transaction, settlement, and subscription servers use HTTP as the  
protocol for communicating with each other, and so provide interfaces that comply  
with a speed optimized version of the common gateway interface (CGI) standards,  
45 called FastCGI 52. Therefore, any server can communicate with any other server  
25 using the usual HTTP methods such as GET and POST.

5                   These three servers include HTTP client functionality similar to the core  
functionality in a browser, and are able to invoke each other, but depend on a general  
10                   purpose web server for HTTP server functionality. Therefore, any host on which one  
of these servers resides is also running a webserver. Specifically, Open Market's  
5                   "TRANSACTION 4", a product designed to work with the Netscape Enterprise Server.

15                   The log server provides communications using TCP/IP to create a process  
that listens to a socket to which the three other servers send records of relevant  
events and the log server stores these records as it receives them.

20                   The database server does not communicate with other servers using HTTP.  
10                   Implemented by Oracle or Sybase, the database server is provided with its own  
communications protocols for being invoked locally or across a LAN by the four  
other distributed servers.

25                   The advertising and ordering process involves the venue sites 18, the  
AdServer 40 through the Ad site 20, the Transaction Server 48, as well as a Payment  
15                   Processor interface 54 and a Supply Chain Interface 56, in addition to the  
30                   consumer's web browser 12. Venue sites 18 serve pages with content and direct the  
browser to request TEAs from the Ad Server 40. The Ad Server 40 then uses  
information in the Ad Campaign database 58, a Consumer Profiles database 50, and  
35                   Patterns database 60 to select the appropriate ad, which the Ad Server 40 then  
20                   retrieves from the Ad Content database 62.

40                   Other tools providing including campaign management tools 64, customer  
server center functions 66, management information tools 68, and stored transactions  
70.

45                   Click-throughs on TEAs direct a browser 12 to contact the Transaction  
25                   Server 48 which responds with an appropriate form such as a login form, a  
registration form, an order form, etc. When an order is placed, the Transaction  
Server 48 utilizes the services of the Payment Processor Interface 54 to authorize  
50

5 payment, and the Supply Chain Interface 56 to begin the fulfillment process. Orders  
are recorded in the Transaction database 70.

10 To support and manage the advertising and ordering process, Ad Content  
Tools 44 are used to create the content 62 of the ads, including text, graphics,  
5 ordering/pricing and related information. Ad Campaign tools are employed to setup  
campaigns and define parameters for scheduling, targeting and rotating ads. This  
15 information resides in the Ad Campaigns database 58 and Ad Content database 62.

After an order is placed, consumers visit the Catalog and Service Site 24 to  
review their orders, inquire about their status, and, if desired, to cancel. The  
20 Customer Service Center 66 provides the relevant information from the Transaction  
database 70. Cancellations are directed to the Transaction Server 48. Consumers  
can also browse and buy from the catalog site 24 and associated server. For this  
25 functionality, the Catalog Server 24 operates like the venue sites 18.

Management information tools 68 provide information and statistics from all  
15 of the databases to personnel at the TEA system 10, and to its partners such as  
venues, suppliers/fulfillers, and shippers. Web servers perform their standard  
30 functions, including the use of extensions such as CGI, NSAPI, etc. to export the  
services of the site's components to the World Wide Web.

35 In the web/application server layer, there are web servers 40, 48,  
20 respectively, for the ad site 20 and the transaction site 22, as well as mechanisms  
which enable the components in this layer to inter-operate with the functionality  
40 servers 28. These mechanisms are NS/ISAPI plug-ins 72 for Ad Manager 42, and  
FastCGI 52 for TRANSACT 74.

45 FIG. 2 illustrates how the main components inter-operate in the flow of an  
25 on-line transaction. There may be a separation between the ad site 20 and the  
transaction site 22, and connections between components within each. The external  
interfaces to the Payment Processor and the Supply Chain partners are also depicted.  
50



5 FIG. 3 illustrates one possible hardware configuration of the system 10, in  
which web servers, application servers and databases reside on UNIX systems,  
preferably Sun Solaris. Campaign and Ad Content Management tools are deployed  
10 on a Windows NT workstation or on a Macintosh, which can be acquired from any  
of the major vendors. The Ad Content database, which may be a file server, can  
5 reside on either a UNIX or Windows NT server system.

15 A communication link is to be provided between the TEA system 10 and its  
fulfillment partners. Each individual order fulfillment for physical goods flows  
through the communication link, with a fulfillment engine or manager 76 for the  
20 TEA system 10 which fundamentally takes into account that different fulfillment  
providers fulfill different products, and thus can intrinsically communicate with the  
APIs of multiple fulfillment providers.

25 The TEA system 10 is enabled by integrating technologies from Accipiter  
and Open Market, in which Accipiter AdManager includes the digital offer in its  
15 concept of a "campaign". Secondly, Open Market TRANSACT, as part of the  
fulfillment process, notifies Accipiter of the transaction so Accipiter may track the  
30 transactional success of impressions served.

35 Multiple instances of the Accipiter AdManager can be installed on multiple  
UNIX machines, which is also possible for the ad web server 40, transaction web  
20 server 48 and TRANSACT 74, which has an advantage in sharing the ad serving  
load and volume, to significantly increase with future business requirements and  
40 needs. Another advantage is the handling of any hardware failure of one or more  
AdManager engines.

45 Table 1 illustrates the performance of one possible scalable system  
25 architecture of the system 10 with multiple Sun Microsystem servers running  
multiple instances of web servers, ad engines, and TRANSACT.

TABLE 1

Impressions per day (in millions)	15	90.8	127.6	183.4
Transactions per day	13,500	72,800	99,000	142,200

## SECURITY

Open Market TRANSACT uses the industry standard Secure Sockets Layer (SSL) protocol to insure that transactional information is communicated privately between consumers and the TEA system 10. SSL provides data encryption, server authentication, and message integrity for a TCP/IP connection between the client and the server. SSL provides a security "handshake" used to initiate the TCP/IP connection. This handshake results in the client and server agreeing on the level of security to use and fulfills any authentication requirements for the connection. Thereafter, SSL's only role is to encrypt and decrypting the data stream of the application protocol being used, such as HTTP. Accordingly, all information in both the HTTP request and the HTTP response is fully encrypted, including the URL which the client is requesting, any submitted form contents such as consumer's credit card number, any HTTP access authorization information such as usernames and passwords, and all data returned from the server to the client. SSL is easy to use and requires no effort on the client side if a browser such as Internet Explorer or Netscape is used.

The order form appears on the browser 12 on the consumer's desktop and is an HTTP/HTML webpage, which is transferred securely to and from the transaction web server 48. This is accomplished with the use of cryptographic technology embedded in the web servers and browsers. In addition, the country in which a browser or a server is located may determine the strength of the cryptographic technology employed.

5 For data being intercepted on the network as it is transmitted between the client and the server, an example embodiment may include encrypting the data at the point of transmission, and decrypting it at the point of reception, in addition to authenticating the server. Widely adopted methods are known and in use typically  
10 for achieving these security aims, and such methods are typically provided free with virtually all web servers and browsers.

15 Within the transactions stored in its database, TRANSACT encrypts the credit card information using a method that employs both RSA public key and DES secret key cryptography.

20 10 In addition, the TEA system 10 utilizes technology called Commerce Objects from OpenMarket. One such object, the Digital Offer, enables consumers to view product offerings, including pricing, while their browsers maintain the information necessary to communicate the acceptance of an offer, such as a purchase, to the TEA system 10. Upon receipt of an offer, the systems at the TEA system 10 must be  
25 certain that the offer was in fact created by the TEA system 10, and that once created it has not been modified by anyone.

This is accomplished with the use of a Message Authentication Code (MAC). A MAC is a cryptographic element that in turn employs a secret key and a message digest to ensure authentication, and to detect tampering, respectively.  
35

20 Application level security is also implemented to control access to the system 10, such as to prevent users from accessing certain functionality or areas of the overall system 10, based on a security-type profile. Application level security may be implemented at the page level. If a user group does not have access to a particular page or area of the system 10, all functionality and data associated with  
40 that page or window is inaccessible. The system 10 accounts for this granularity of security according to the characteristics of the user groups. As business requirements change, it is quite easy to alter access rights for a particular group by  
45

5 modifying the security data in the database; therefore, application level security may  
be stored in tables in an Oracle relational database.

10 The prevention of unauthorized access to computers connected to the Internet  
is an imperative. Commercial websites are especially vulnerable because they  
5 contain financial information, such as credit card numbers, and because they are  
easily identifiable by their presence on the World Wide Web. Security measures  
15 including firewalls, network zoning and general system security practices, such as  
passwords, access logs, and event monitoring, are employed to keep systems secure.

20 In the TEA system 10, systems with web servers are protected by firewalls,  
10 which restrict to web protocols the network traffic destined for these hosts. In  
addition, commerce applications such as AdManager's Ad Engine and  
TRANSACT's Transaction and Settlement Servers, reside on separate systems  
25 connected to the web server systems, rather than directly connected to the Internet  
14. There may also be additional firewalls between these system, to restrict network  
15 traffic appropriately. All systems are also monitored for intrusion.

30 The TEA system 10 has interfaces, such as communication links, to external  
systems, including the credit card payment processor and any fulfillment system.  
Each requires an appropriate level of security. Open Market TRANSACT, which  
35 conducts the communications with the payment processor, as part of its core  
20 functionality, in a very secure manner. However the mechanisms used depends on  
the particular payment processor, such as the NatWest payment processor. Together  
40 with a fulfillment entity, the TEA system 10 may implement an appropriate level of  
security for a common interface.

#### 45 25 EXAMPLE HARDWARE AND SOFTWARE EMBODIMENTS

Operating systems for supporting the TEA system 10 may include Hewlett-  
Packard HP-UX, Silicon Graphics IRIX, or Sun Solaris. Programming languages

5 may include C++ for the applications and subsystems, HTML with embedded  
server-side JavaScript for the user interfaces, and utilities written in either Sun  
10 Microsystems Tool Command Language or standard UNIX shell scripting language  
such as csh.

5 The databases may be Oracle-based or Sybase-based systems, and the web  
server may be the Netscape Enterprise Server. Remote invocation may be  
15 performed using HTTP with FastCGI 52. Note that for database calls, the database  
vendors' own invocation protocols may also be used.

AdManager may operate using the Sun Solaris 2.5.1 or 2.6 operating system,  
20 or the Microsoft Windows NT Server 4.0, and using their client libraries, or  
alternatively the client libraries of the DEC Alpha NT or DEC Alpha UNIX systems.  
For the AdManager, the web servers may include Direct Server (DS), which acts as  
25 a web server, and/or Microsoft IIS, Netscape Commerce, Netscape Enterprise, or  
Netscape FastTrack.

15 The usable web server plug-ins may include those of Apache 1.2.5, ISAPI  
(IIS 2.0, 3.0, 4.0), and/or NSAPI (Netscape FastTrack 3.0, Netscape Enterprise  
30 3.01). The databases used may include those of Infomix, Microsoft SQL Server,  
Oracle, or Sybase SQL Server. Supported browsers include Netscape Navigator  
35 4.03 or higher, and/or Microsoft Internet Explorer 4.0 or higher.

20 The ENGAGE software may be performed using web servers such as:  
Netscape Enterprise Server and/or Microsoft Internet Information Server 3.0 on  
40 Windows NT 4.0, and running as operating systems either Sun Solaris 2.5.1 and/or  
Microsoft NT 4.0. ENGAGE may also store and use databases on an Oracle Server  
7.3, a Microsoft SQL Server 6.5, and/or an Infomix V7.2 server.

5 convey to the viewing consumer that the system 10 is available to process a purchase  
transaction of the product corresponding to the content 86. The entire ad banner 84  
10 may be an actuatable GUI icon for initiating an E-commerce transaction for the  
product of the content 86.

5 Referring to both FIGS. 5-6, once the icon 78 in FIG. 5 or the ad banner 84  
in FIG. 6 are actuated by the interested consumer, a pop-up window 90 is generated  
15 by the system 10 and displayed over the webpage 82, as shown in FIG. 7. For  
example, the pop-up window 90 may be generated corresponding to actuation of the  
ad banner 84 in FIG. 6 to overlay the underlying webpage 82. The window 90 may  
20 include a logo 92 or other information which may identify the product supplier for  
the product of the content 86, or may include additional information such as content  
or a trademark of another company to co-brand the content 86 with another entity.  
25 Alternatively, the logo 92 may be another TEA capable of actuation for additional  
inquiry and purchasing of products.

15 The consumer is provided with selectable inputs 94, 96 to access pull-down  
menus to choose versions of products, to select mode of shipping, and to specify  
30 other purchase parameters. Additional information 98 may be provided to inform  
the consumer as to what s/he is purchasing, as well as the price, which may be in any  
35 default currency, including a currency selected by the consumer, as described herein.  
20 Upon inputting the purchase information by the inputs 94, 96 and upon review of  
the information 98, including price, the consumer may complete an E-commerce  
40 transaction to purchase the product of the content 86 by entering a transaction  
completion command, such as by actuation of an icon 100.

45 The system 10 then generates a transaction completion screen 102, shown in  
25 FIG. 8, which sets forth the purchasing parameters such as the quantity, a product  
description, and price in any chosen currency. The screen 102 allows the user to  
50 enter additional information such as name, address, and credit card information in

5 available input fields 104, 106, as well as to change the purchase parameters such as  
quantity before completion of the transaction. For registered users, some or all of  
10 the fields may be filled-in, based on the user's pre-entered information stored upon  
registration.

5 The user may then complete the E-commerce purchase by entering a  
confirmation command, such as by actuating the icon 108. The system 10 then  
15 generates an electronic receipt 110, as shown in FIG. 9, which the user can refer to  
and print.

20 The system 10 may address diverse situations to service and enhance a user's  
10 browsing and on-line purchasing.

User Scenario One: the system can handle the task in which a user browses  
the CNN website for news and make an unplanned order for a compact disk (CD).  
25 Bob is on the CNN site reviewing news information. Bob sees an ad banner for a  
new Dave Matthews Band album. He had heard people talking about the album at  
15 the soda machine. He clicks on the banner. The banner expands/drops down, but  
does not take Bob away from CNN, since the website is still visible in the  
background. He sees a good price, and clear information about how/when the CD is  
to be sent to him. He sees that he could go to the TEA system 10 to get an  
35 understanding of who the company is, but decides that he doesn't need to. Bob sees  
20 that he has the option to listen to a track from the CD by actuating a displayed icon  
to play, for example, an AVI file. He chooses to listen to the music. He likes the  
40 music, and clicks on the "Buy Now" button. Bob fills in relevant info. Bob gets  
confirmation and a thank-you message for his order. He also gets a special offer for  
a cross-sell opportunity, and decides that he indeed wants to purchase a Bare Naked  
45 Ladies CD and a Madonna CD as well. Though he notices a box that offers a loyalty  
25 program, he decides not sign up. After completing the transaction, he goes back to  
reading CNN.com by simply clicking on one of the CNN Headlines.

5                   User Scenario Two: E-mail from the TEA system 10 through a loyalty  
program. Bob receives an E-mail from the TEA system 10. He opens and reads it,  
and it confirms that his order has been sent, and lets him know when he should  
10                   expect to see it. The E-mail provides the TEA system tracking number for his  
5                   purchase. The E-mail also provides a URL for the TEA system customer service,  
and may provide a customer service telephone number such as an 800 number. Bob  
15                   is a little anxious, and clicks on the URL, opening his browser. He gets the status of  
his order, and optionally if Bob is a registered user of the TEA system 10, the page  
may be personalized. On the tracking status page, Bob sees standard navigation  
20                   10                   options, including links to a loyalty program, special offers, and a homepage of the  
TEA system 10. Bob clicks on the loyalty program link. When he arrives in the  
sign-up area, much of his relevant info is pre-filled into the form. There is  
25                   information about what kinds of services the loyalty program offers. Bob answers a  
few questions about his interests, and selects a password.

15                   User Scenario Three: one-click purchase of a magazine. Bob is on-line,  
30                   checking out his 401(k) on Quote.com. He sees a banner ad for Mountain Bike  
Magazine. He sees the TEA system 10 logo and/or an "Express Buy" button or  
icon. He remembers how easy it was to get his Dave Matthews CD, and decides that  
35                   he wants to order the magazine. He clicks on the Express Buy button, enters his  
20                   password, and gets a confirmation that his order has been placed. He returns to  
Quote.com.

40                   User Scenario Four: the unregistered, reluctant user engaging in a first visit.  
Karl is on AOL, and goes to ESPN.com to check tennis scores. He sees a TEA  
system banner ad selling tickets to the U.S. Open. Karl clicks on the banner to get  
45                   25                   more information. The banner opens up to display an offer window, and Karl is  
reassured when he sees that ESPN is still on screen. Karl clicks on a displayed  
"About the TEA system" button. A new browser window opens up with info about  
50



5 the company. Karl clicks on the "Send me a Return to this Offer" E-mail button  
about this offer. Karl is prompted to enter his E-mail address and assured that his E-  
mail address and information are not to be sold to marketing lists. He is advised that  
10 there is no guarantee that the offer is still available when he gets back to it. He  
5 submits the form, the banner closes up, and he returns to ESPN.com.

User Scenario Five: a "Return to this Offer" E-mail arrives. Karl receives  
15 the E-mail from the TEA system 10 about the U.S. Open tickets. He checks his  
Daytimer and confirms that he and his wife are free on the day that tickets are  
available. He clicks on the "U.S. Open" link on his E-mail, and is brought to the  
20 "U.S. Open" offer window that he had been on before. Karl reviews the security  
features and return to the "About the TEA system" area. He feels comfortable, and  
decides to purchase the tickets. He goes through registration process, as in the first  
25 user scenario.

## 15 FUNCTIONS

30 The system 10 implements numerous functions described herein facilitate  
set-up and use of the system 10 by administrators to generate TEAs, to target users,  
etc. FIG. 10 illustrates an example of the AdManager control screen for allowing a  
35 system administrator to select and specify targets, to operate with the ENGAGE  
20 software and database, to specify areas for the ad targeting such as geographic  
regions, and to use tags and other components such as templates and ad creation  
40 tools to modify ad sizes and ad formats. Additional functions of the system 10 for  
ad management are described herein.

45 Through Accipiter's AdManager, campaigns may be created as shown in  
25 FIG. 11 to specify and store pertinent information, such as a name for a campaign,  
the advertisers involved, their contacts, etc. Similarly, through AdManager, a  
system administrator can monitor the activities of the system 10, for example,  
50

5 through the screen shown in FIG. 12. The additional functions of the system 10  
related to the generation and use of the screens shown in FIGS. 11-12 are described  
herein.

10 The system 10 includes a plurality of software applications, modules, and/or  
5 sub-systems for providing at least the following functions and features described in  
greater detail herein, and implemented with the disclosed architecture, the disclosed  
15 application software, and third-party and off-the-shelf software known in the art.

#### AD TARGETING AND SERVING FUNCTIONS

20 The system 10 provides an Ad Delivery function, which is the ability to  
deliver ad content, banners or other forms of advertisements, as requested by venue  
sites. AdManager handles simple image-based ads very easily, and the system 10  
25 also supports rich content such as multimedia. Such ad delivery is compatible with a  
substantial number of browsers using known methods such as "ACTIVEX"  
15 technology, to support a number of ad types such as animation and audio-based ads.

30 The ad delivery function is compatible with ad management software located at the  
venue of the browser, and is able to fit into new platforms, such as digital TV, as  
well as extensible to future applications using S8 platform extensibility.

35 Another function of the system is a Define Basic Rule Set function, which  
20 allows for the creation and maintenance of the rules used by the ad targeting and  
delivery engine to select which ad is served to whom. A tight linkage with  
40 campaign targeting functions of the system may also be provided. These features  
are supported directly by AdManager. Accipiter's AdManager has the infrastructure  
to handle the Define Basic Rule Set functionality. Rules are defined and then built  
45 into the infrastructure provided. To support the definition of basic rule sets,  
25 administrators of the system 10 may create, delete, and/or modify ad targeting and  
delivery rules. Administrators may also use logical operand and connectors, such as  
50

5 AND, OR, <, >, =, etc., to perform logical operations for setting targeting criteria  
and exclusion criteria. For example, targeting criteria may include the time, date,  
10 operating system, website, page group, domain, geographic location, interest  
categories, etc. of the users of the browsers. Exclusion criteria may include family  
5 filtering and other rules for keeping certain ads off of certain websites and webpages.

Another function of the system 10 is Ad Selection by a Rules Based  
15 Technique, in which the mechanism of ad rotation and exclusion is performed in  
order to tightly target ads to consumers without repetition. In use, such ad selection  
insures that competitor's ads are not served right after one another to a single  
20 consumer, or a competitor's ad on a venue. Such functions included in Accipiter  
implement rules-based rotation, rules-based exclusion, and access from Accipiter to  
purchase history in usable form maintained by Open Market.

25 The system 10 also performs Data Tracking functions, in which the system  
10 accurately records the number of impressions served and the environments into  
15 which they are served. Through tracking the activity and information of potential  
and established customers and customers, the system 10 gets smarter and learns  
30 about what ads to target to whom. In addition by tracking where in the ordering  
experience the potential customers drop out, the system 10 is able to spot potential  
35 process issues that cause people not to purchase through the TEA system 10. The  
20 system 10 supports served environments specified by the corresponding browsers,  
URLs, webpages, users, and time spent on specific webpages.

40 Date tracking utilizes visitor identification (VID) numbers to anonymously  
track a specific user, and may also utilize a member ID of the user, to collect  
information on the impressions, click-throughs, and transactions of each user. Such  
45 tracked information is then usable for cross-selling and consumer information  
25 management functions. The prior art suffers from the general inability to monitor  
activities across the de-coupled systems connected to the Internet, in addition to the  
50

5 complexity of being able to track visitors' transactional success out from the "back"  
of the transactional component. This functionality is handled by Accipiter.

10 The system 10 also supports Push E-mail and direct selling functions, in  
order to serve offers proactively to targeted customers. Studies have shown that the  
5 conversion rates with direct mailing customers that have requested direct mailing are  
significantly higher than unsolicited mailings. This function gives the TEA system  
15 10 another channel to increase potential sales as well as to build brand loyalty. The  
amount of E-mail solicitation activity is driven by the availability of the TEA system  
staff to drive this process. E-mail packages selected by the TEA system 10 may also  
20 10 deliver mailing lists generated by member database queries.

To perform such push and direct selling, the system 10 allows for the  
targeting of self-selected members to receive such E-mails and notices, and for  
25 utilizing third-party mailing lists. The push/direct selling functions may vary a  
given offer according to customer identity and preferences, and may also have  
15 broadcast capabilities to groups or all users of the system 10. The messaging  
involved may be text and/or HTML-based. Also, the push/direct selling features are  
preferably linked to the rain check function described herein, and an unsubscribe  
function is also provided. Through the push/direct selling feature, the system 10  
35 may capture customer interests, and also monitor response and conversion rates.

20 The system 10 also supports Fixed Offer arrangements, which allow the TEA  
system 10 to place a specific, non-banner offer statically on a webpage without the  
40 necessity for the ad to be served. Fixed offers provide a large number of  
impressions without requiring AdManager to target and serve an ad. Fixed Ads are  
closely tied to the page they are resident on and therefore have a high percentage of  
45 25 conversions. This requires the construction of ad content without references to the  
ad server, but which can be incorporated into the content creation process relatively  
easily. The only complexity lies in the area of sites which are too small, such as

5 personal websites, to be treated as venues. The system also distributes ad content  
directly to venues, and such ad content may be identical to the ad content which is  
dynamically provided.

10 To implement such fixed offers, the system 10 may provide the pairing of an  
5 image and a click-through sequence to represent a specific offer. The fixed offer  
may have distinctive characteristics compared to standard banner ads, such as  
15 different shapes, graphical borders and/or colors of the ad, etc.

The system 10 also performs Ad Inventory functions to maintain a logical  
inventory of ads which have been committed by venues, as well as the ability to  
20 forecast availability across date ranges and various other dimensions. This function  
allows for the ability to proactively manage the ad inventory and to forecast  
potential revenue. Having the ability to see the effects of adding or removing a large  
25 campaign gives sales and operations a useful planning tool. The value of providing  
this information supplements the ability to use manual techniques to track inventory,  
15 so that the manual inventory can then be compared with campaign actuals.

30 In implementing the ad inventory functions, the system 10 may allow for the  
selection of a date range, may specify a history to be analyzed forward, and other  
factors of existing campaigns to indicate availability. The ad inventory function  
35 may perform one-dimensional projections, such as based either on a time-period or  
20 URL activity, or may perform multi-dimensional projections based on multiple  
factors at once, such as both time-periods and URL activity. The ad inventory  
40 functions permit the system 10 and its administrators to reserve inventory and to  
account for buying impressions.

45 The system 10 also performs Dynamic Assembly functions, to allow for the  
25 construction of advertisements from components based on ad targeting rules with the  
aim of putting the ad which is most likely to convert to a transaction in front of the  
prospective customer.

5           Dynamic assembly of ads provides the ability to tailor ads very specifically  
to users by constructing them from components as they are requested. Colors,  
images, information, and international components such as language and currency  
10       can be adjusted on-the-fly to target customers more specifically and therefore  
5       increase the conversion rate.

15           Ad Manager's function is to select ads that are appropriate to a given context,  
to retrieve them from a static data store, and to serve them. Dynamic assembly uses  
a complex rules-based infrastructure integrated with the Ad Engine. By  
implementing rules linking to or excluding components depending on pre-stored  
20       component identifications and definitions, the dynamic assembly can tailor the ads  
10       to the prospective customers.

25           The system 10 also provides Ad Selection using neural networks or nets for  
improving the current ad selection engine provided by Accipiter AdManager by  
adding additional variables and dimensions, as well as leveraging existing variables  
15       and dimensions as input to a neural net based targeting engine. It is intended for this  
30       function to be more robust over time as the system 10 learns about the targeting  
criteria and add to its database of user information. This function drives a long-term  
competitive edge for the TEA system 10. The ability to target ads with a higher  
35       potential of converting to a transaction is a key differentiator for the TEA system 10.

20       Any commercially available neural net-based decision support product known in the  
art may be used is required to provide these features. This capability may also be  
40       provided as a discrete plug-in to AdManager.

45           Using a neural network, the system 10 is capable of learning more about  
users to make ad recommendations with strength and also to provide a continuous  
25       advantage of the system 10 over time. Generally, the neural network considers ads  
which Accipiter and its rules do not already exclude; that is, the neural network  
preferably does not override the exclusion rules. The system 10 may support and  
50

5 run multiple neural net engines; for example, with a single neural net focussing on a  
predetermined geographic region for sales and ad placement.

#### 10 ENGINE LEARNING AND OPTIMIZATION FUNCTIONS

5 Another function of the system 10 is to provide a Decision Support System  
(DSS), which is an ad hoc query system/infrastructure of the TEA system 10  
15 information and history to improve the targeting and other business practices of the  
TEA system 10. The business benefit of this group being able to ask questions is  
potentially very high. The long term competitive advantage is dependent on high  
20 CPM systems, that is, the best selling.

Based on information that resides in local databases, applications can query  
through and present such information optimize the selling process. That is, ad  
25 targeting, campaign strategy, etc. involves individuals who spend time figuring out  
the right questions to ask, rather than asking a group of previously developed  
15 questions. As a result this functionality is actually more of an infrastructure for ad-  
hoc database querying and report/analysis design. The system is able to track and  
30 analyze performance metrics as well as to use a tool set that allows the system  
administrator to build and expand the system 10 in future.

35 Thus, the system 10 can tie into and use the available data tables and data  
20 bases and capture metadata, and access a report writing tool for generating reports  
for administrators, such as reportage of statistics of usage determined according to  
40 venue.

The system 10 also performs functions to set up and maintain variables and  
algorithm for ad targeting, to provide the ability to create and modify the parameters  
45 used for ad targeting, which augments the current functionality of AdManager for ad  
25 targeting, for example, using purchase history. This feature allows the TEA system  
10 to enhance the ad targeting functionality included within Accipiter AdManager.

5 It is a key differentiator over time, as other E-commerce systems and competitors  
enter the TEA market, that the TEA system 10 has a higher effective CPM because  
of an excellent conversion rate on impressions. Administrators can create variables  
10 for entry of data, and can test and modify ad targeting algorithms.

5 The system 10 also performs functions to access external data sources, and to  
improve the targeting of advertisements, and hence the conversion rate, through  
15 importing external data that adds to our ability to understand the buying predilection  
of a potential customer. The ability to leverage external data sources having  
appropriate information helps the TEA system 10 to target ads more effectively,  
20 based on socio-demographic databases, direct marketing lists, and market watching  
organizations, which increases conversions and use.

Neural net testing is another function of the system 10, to provide the ability  
25 to run two or more neural nets in parallel in order to see the effects of changes in  
variables used in the targeting algorithms. Neural Net testing provides the ability to  
15 see the results of modifying the variables in the targeting algorithms. With this  
30 information the targeting feature becomes more robust, increasing the conversion  
rate of impressions to transactions. Comparisons between targeting algorithms may  
be used to test categorizations of products and venues.

#### 20 TRANSACTION PROCESSING FUNCTIONS

The system 10 also supports functions using a Present Order Taking  
40 Template, in which the system 10, based on the advertisement that has been served,  
selects and presents the correct order form. The basic order form process allows the  
TEA system 10 to collect revenue, as well as to provide the ability to cross-sell for  
45 increasing revenue and effective CPM, in addition to providing the ability to let the  
25 customer know product volume constraints.



5           The core functions are provided by TRANSACT, with additional functions  
invoking custom content, for example, in the case of "Let customer know product  
10       volume constraints" to provide access to supply chain information as well. The  
templates themselves also are designed and tied to the appropriate parts of  
5       campaigns in Accipiter.

15           Through the present order taking template, a user may specify a country for  
shipping and for tax purposes, and optionally may specify a preferred currency for  
the E-commerce transaction. Also, pre-registered users may receive different forms  
from anonymous users, in which pre-registered users have pre-filled fields in their  
20       orders, since the one-click registration and usage streamlines the ordering process.  
The order taking template may have a style of appearances of the form  
corresponding to the look and feel of the actuated ad banner or other ads selected by  
25       the user upon display by the system 10. Information in the fields of the template is  
generated by the system 10, for example, using a component integration application  
15       such as a supply chain information system (SCIS) module and using the offer  
windows initially, and may specify product information as well as the physical  
30       delivery information, size, quantity, etc. of the product. Available fields displayed  
in the template may vary based on the product and/or the types of products. In  
35       addition, security information may be displayed and highlighted, and available  
20       return policy information may also be displayed and highlighted.

40           The present order taking template may let a customer know of any product  
volume constraints, and may support cross-selling as part of the order taking form  
and process. To implement the template, Open Market TRANSACT functionality  
and digital offers are used to provide pop-up order forms that sell the advertised  
45       product. The TEA system 10 can potentially use variable cursors over the ad banner  
25       to generate interest. The use of "bubbles"; that is, graphical drawings of a text in a

5 bubble, as a method of information distribution through ad banner may keep  
customer in the order form area.

10 The system 10 also includes functions to collect complete order information  
to ensure that all required fields are filled in completely as well as checks that the  
5 information entered in those fields are valid entries. Transactional functionality is  
built upon Open Market TRANSACT, allowing the system 10 to validate a specified  
15 country for delivery, as well as customer name, address, telephone, and other  
information. Shipping and export restrictions are displayed, and a customer's  
selected delivery date and other information is obtained, such as authorization from  
20 the consumer on how E-mail to the consumer may be used in the future, such as  
promotional communications, product and order problem contacts, etc. Through the  
collection of complete order information, the system 10 may also permit the user to  
25 register as a member and to sign up for one-click functionality.

The system 10 also implements an Authorize Payment function, in which  
15 credit or charge card details and total purchase amount are communicated to a credit  
card authorization center for approval of purchase. Credit Card authorization is used  
30 in the order taking process, implemented by existing Open Market TRANSACT  
functionality, with an interface to a predetermined banking institution, such as  
35 NatWest. The order is taken regardless of how the fulfillment request is queued in  
20 order to provide a cooling off period for the customer. The system 10 recognizes the  
credit card scheme rules, including expiration of authorizations after, for example,  
40 five days, in the design of the fulfillment communication process.

The system 10 implements the authorize payment functions by processing a  
card number, expiration date, user name on the card, amount and currency of the  
45 transaction, and type of card such as VISA, MASTERCARD, etc., as well as  
25 corporate purchasing cards for business-to-business transactions. The system 10  
may thus return real-time authorization instead of batch authorization processing, to  
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5 return an authorization number or to decline the transaction, and may also support  
alternative credit card data for authorization if a first credit card is declined. The  
10 system 10 may use the predetermined and/or preferred banking institution, or may  
support alternative authorization and banking providers. The system 10 may also  
5 support contingencies, for example, to provide flexibility to wait on authorization to  
capture payment, by queuing the authorizations, due to the performance or  
15 availability of the authorization systems, or lack thereof.

The system 10 also provides a Check/Reserve Inventory function, which  
performs a check that the amount of product the customer wants to purchase is  
20 10 available for sale. This feature provides value by preventing the overselling of a  
product, and also by preventing the selling of a product which cannot be fulfilled in  
a timely manner. In particular, the system never places an ad if the system 10  
25 determines that no stock is available, and so avoids an out-of-stock condition. In  
addition, the remaining quantity of products available and/or a minimum threshold  
15 of stock in reserve may control the display of corresponding ads; that is, if the  
system 10 cannot fulfill a particular order for a specified quantity, no corresponding  
30 ad is displayed.

If quantity is available, the system 10 apprises the customer of the remaining  
35 volume. Alternatively, the system 10 may employ a no-limit or a bottomless  
20 inventory strategy with contingency plans for fulfillment. On-line inventory queues  
up until fulfillment and on-line item reservations with fulfillment are also supported.

40 The system 10 also performs Capture Payment functions, which charge the  
consumers' charge card, and credit the merchant's account, while also diverting  
appropriate amounts to individual supply chain business partners. This allows the  
45 25 system 10 to automatically calculate how much of the purchase amount belongs to  
each of the non-customer partners and send the amount thereto. The TEA system 10  
is not intended to be a bank and this function ensures that it does not have to be.

5 Credit card payment processors have no knowledge of parties involved beyond  
consumers and merchants. The splits therefore may use a secondary interface to the  
10 merchant bank. These may be either aggregate calculations or transaction-by-  
transaction, for example, using micropayments. This functionality is based on Open  
5 Market functionality with an interface to a predetermined banking institutions, such  
as NatWest.

15 Contingency interfaces may also be provided, for example, to alternative  
payment providers, and payment may be triggered by a fulfillment shipment  
confirmation, either received or shipped by fulfillment.

20 10 The system 10 may also support Virtual Point of Sale functions, includes  
software that accepts the user's sale and converts it into an order, an order  
acknowledgement, fulfillment requests, payment requests, etc., by using the  
25 functionality of Open Market TRANSACT. The system 10 accordingly calculates  
totals, taxes, shipping, etc. to present to the user for approval, and returns to the user  
15 an order confirmation number. The user may be presented with a change order  
and/or a cancel order option, as well as an option to register as a member user.  
30 Links to customer service websites may also be provided.

35 The system 10 also supports E-mail Confirmation/Rejection functions, to  
send E-mail to the consumer indicating order status, which is generally sent  
20 immediately on receipt of the order from the consumer. The order is placed on hold  
for a short time as a "cooling off period" to provide some cooling off time for the  
40 consumer, allowing the consumer to cancel the purchase after ordering on impulse if  
the consumer changes his/her mind. After the cooling-off time without cancellation  
by the consumer, the order is automatically confirmed and the confirmation E-mail  
45 25 is sent. The E-mail may include a link to the self-serve consumer service site.  
Implemented as part of the Fulfillment daemon with Open Market TRANSACT, the  
TEA system 10 uses a predetermined E-mail infrastructure or provider.

5           The confirmation E-mail is always sent upon confirmation by the system 10,  
and the confirmation E-mail may include information on where the consumer may  
go for more information, and optionally to prompt the consumer to register as a  
10       member of the system 10. The confirmation E-mail includes a URL link to other  
5       sites such as the customer service website, and also includes a block of text and/or  
graphics providing additional promos or ads. The confirmation E-mail may further  
15       include a delivery update and/or a message whether there is a problem on the  
delivery side, such as an out-of-stock situation.

          Alternatively, when the system 10 does not confirm the order and/or the  
20       credit card of the consumer, a rejection E-mail is sent which includes a declined  
credit card message, and optionally a message to the consumer to return to the  
website to rectify any credit card information and/or to use another credit card.

25           The system 10 also maintains functions for Order Communication with  
Fulfillment, for processing of electronic communication between the TEA system 10  
15       systems and fulfillment systems. This interface allows the business to scale to large  
30       volumes, and to be implemented as a fulfillment daemon utilizing Open Market  
API's, which monitors pending orders and sends them to the appropriate fulfillment  
partner at the end of the cooling off period, or a requested delivery date delay period.

35           The order communication with fulfillment function obtains information  
20       through messaging on available reserve stock and release stock, and checks on-line  
with a fulfiller that stock levels are adequate before confirming with a customer that  
40       a transaction is completed. Order numbers and shipping details may also be  
exchanged with fulfillers, and conformation of an order with a fulfiller is obtained  
by the system 10. Backup communications such as confirmatory E-mails may also  
45       be implemented. Using this function, the system 10 may establish automatic links to  
25       lead wholesalers as well as multiple suppliers through, for example, the Internet

5 using the TCP/IP and HTTP protocols, and alternatively may use low-tech links to  
multiple suppliers, such as hard copy mailings of order information.

10 The system 10 also supports a rain check function to provide buy-later  
capability to customers. This option may assist in overcoming barriers to purchase,  
5 and is thus very important to support of the impulse-purchasing model. A rain check  
may be implemented by the system 10 in the form of an E-mail with a link such as  
15 an active URL listing to the Open Market Transact digital offer. Upon receipt of the  
E-mail message with the rain check message, the customer may actuate an icon or  
other commands such as clicking a mouse button to defer his/her decision to buy the  
20 selected but unavailable product. Alternatively, the customer may be required to  
redo the order if there are errors in the processing such as a bad CC number. In  
addition, the system 10 may maintain the goodwill of the customer by providing, in  
25 the rain check E-mail, referral information to other suppliers of like or comparable  
products.

15 The system 10 also facilitates cross selling using a cross-selling function to  
offer the ability to a customer to purchase related products as part of a primary  
30 transaction. Once the psychological barrier has been crossed and the customer has  
made the buy decision, s/he may have a less difficult decision to make regarding  
35 purchasing other related products. Multiple product purchases increase revenue and  
20 increase the effective CPM. Cross-selling involves both the mechanisms to deliver  
the content and conduct the transactions, and to integrate products into the ad  
40 selection software. To enable cross selling at the simplest level, a TEA may be  
provided on the confirmation page or E-mail of the primary transaction.

45 The system 10 implements cross selling by determining a simple link  
25 between products, such as product links stored and accessed in a table. In addition,  
rules and other logic may be implemented to select an incremental product beyond  
the primary transaction to be offered to the customer and having the best chance of  
50

5 being purchased as a cross sale. Furthermore, special promotions may be provided with two or more products, allowing the user to select one or more products.

10 Alternatively, with the primary transaction, the system 10 may attempt to sell other promo items to the user with a "just add on" option provided to the user and/or a  
5 "more like this one" button, icon, or a link to obtain information about related products available as cross-sales.

15 The system 10 also performs functions for calculating splits using a known split algorithm to calculate the amount of the transaction price to be allocated to each supply chain entity. The TEA system 10 is able to allocate funds for each supply  
20 chain partner. Such split calculations use database application software to store pertinent split information, such as simple percentages or flat rates among supply chain partners. In addition, aggregate approaches and value floors or ceilings may  
25 be used to split transaction prices and proceeds. A history of such splitting of transactions may be stored in a split history database of the system 10 for further  
15 operations, such as taxes, reporting functions, etc.

#### 30 TAXATION, CHARGES, AND FEE FUNCTIONS

35 The system 10 also includes a tax calculation function for determining the appropriate sales taxes in the context of consumer transactions. Although the TEA  
20 system 10 may not be required to collect taxes in actual practice, by including this functionality, the TEA system 10 is prepared for both collecting and non-collecting configurations. This function is handled by TRANSACT for the U.S. market, and  
40 other known software applications may be used for tax calculations in international orders. Alternatively, the burden of calculating and paying the applicable  
45 international tax may also fall to the consumer. Accordingly, the system 10 may store information which is continually updated on current tax laws for different  
25 taxation jurisdictions.

5 Similarly, the system 10 provides functions for calculating shipping charges  
based on shipping parameters corresponding to the consumer or to the purchased  
product. The ability to calculate for multiple shippers and/or multiple shipping  
10 methods adds an element of choice that is attractive to many potential customers.

- 5 Dynamic calculations and/or the use of real-time information employ Open Market  
Transact functionality. It can verify that the flat rate charges can handle the different  
15 shipping options, for example, for volume shipments. Accordingly, the system 10  
maintains and stores information on flat rate charges, for example, in a static pricing  
grid, as well as information on multiple shipping-type options and multiple shippers.  
20 10 Dynamic price calculations may be performed to provide real-time comparison by  
customers for best prices. Also, queries may be processed in real-time for  
fulfillment of shipping costs.

- 25 The system 10 also implements a currencies function, using appropriate  
software and infrastructure for the quotation of product pricing and payments for  
15 products in currencies including and/or other than the U.S. dollar. Quoting in multi  
currencies increases conversion rates significantly with non-US customers. These  
30 potential customers are more likely to purchase on impulse if they are not required to  
make a currency calculation in their head, or look up the currency conversion if they  
35 are not familiar with the exchange rate. The ability to tailor the banner price to a  
20 country of origin of the consumer gives a very high business benefit.

- 40 Accordingly, the system 10 stores currency exchange rates in a database  
which is continually updated, for displaying to the customer in an order form the  
total price in a selected currency, and optionally along with the equivalent in U.S.  
dollars. The selected currency may be user-selected, or may be determined by the  
45 25 currency local to the product supplier, local to the country of the consumer receiving  
the ad banner, or local to the product displayed in the ad banner having a  
predetermined currency setting regardless of the supplier.



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## PRODUCT CATALOG FUNCTIONS

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The system 10 may also implement a browse catalog function, in which an on-line catalog is displayable having available product offerings structured by product category type. The ability of a user to browse acts as basic transaction enabled ads in the form of static offers, and also enhances the customer's information for all transactions, offers, and ads. Accordingly, the system 10 stores a static collection of offers of products, and provides full catalog functionality with pricing tied to ad pricing. The catalog may be tailored by membership information of the browsing user to highlight products and promotions; for example, with distinctive colors and/or flashing animations, which the user may be disposed to purchase.

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In addition, the system 10 provides a Search Catalog function, providing the user with the ability to target products based on criteria chosen by consumer. The ability for users to perform simple searches of the catalog conveys the perception of a credible website and business. Consumers are given the option of different navigation styles, as well as keyword searching and advanced searching, such as Boolean operations.

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The system 10 also performs a Transaction Capability function for supporting product ordering through any TEA link, such that the user should experience no difference between ordering a product from a venue site or the TEA system 10 accessing the venue site, or from an on-line catalog of available products.

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The system 10 also provides Shopping Cart functions for storing multiple products for single purchases and manipulating the order, using known off-the-shelf software which can be deployed in a catalog site and which can drive more traffic to the site to make multiple purchases. Using the shopping cart function, users of the system 10 may add and delete items from a personal shopping cart, such as a stored

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5 list of products selected by a user, and users may view the contents of a cart, change  
a quantity of items therein, and view a running subtotal of the costs of the currently  
selected and carted items.

## 5 CONSUMER SELF-SERVICE FUNCTIONS

10 The system 10 also implements a Registration function to offer the consumer  
the ability to register for membership with the TEA system 10 in order to take  
15 advantage of one-click and direct E-mail offering features. Registration is  
advantageous for the TEA system 10 and allows the user to easily order items via a  
20 single click. In addition, registration allows for the collection of user information  
such as hobbies, interests, etc., to allow the TEA system 10 to refine the user's  
profile so that they can target the users with products that are more likely to be  
25 ordered. These features are provided by Open Market TRANSACT. Registration of  
members, facilitating one click purchasing and direct E-mail campaigns, includes  
15 interest questionnaires and interest-gathering games, and uses Open Market Transact  
to provide PIN/password-based product selection and purchase, and to give  
30 permission to the system 10 to use the registered member's information for receiving  
product promotions. For registered users, the system 10 sends options for offers,  
35 and allows multiple registrations of different users who may use the same computer  
20 or network.

40 The system 10 also implements a Check Order Status function which allows  
a consumer to use the TEA system website to track the progress of the order.  
Simplistic order tracking functionality is provided, including the ability for  
customers to reference the shipper's tracking number and to get approximate arrival  
45 25 times once the product has been shipped, as well as customer visibility to the other  
links in the supply chain. The status of the order as pending or shipped, as well as  
whether the order was approved, declined, or cancelled. The order information may

5 also indicate where the shipment is, and may access and display a UPS or FEDEX  
status form.

10 The system 10 also includes a Cancel Order function to give the consumer  
the ability to change his/her mind and cancel an order. Given the nature of impulse  
5 orders, consumers must feel secure that they have the ability to cancel an order  
within an acceptable period of time. Offering this feature increases the consumer's  
15 sense of trust with the TEA system 10, using a "cooling off period" purchasing  
model in which the customer has a time period, such as an hour, to cancel the order.  
An API may also be implemented which, in response to a user cancellation  
20 command, cancels the order with the fulfillment house. Accordingly, the system 10  
supports delayed fulfillment by a predetermined time period, such as one hour.

25 The system 10 also supports a Change Order function which offers the ability  
for a customer to change an order during the cooling off period. Consumers must  
perceive the TEA system 10 as a flexible site that does not prohibit them from  
15 making alterations to their orders. For example, tickets to sports or cultural events  
require a greater deal of perceived flexibility due to time and value considerations,  
30 while CDs require less flexibility as being time-independent goods. The system 10  
allows the user to change the quantity for purchasing more or less of a selected  
product, as well as characteristics of the products, such as size, features, etc. Other  
35 information capable of being modified includes delivery address, payment method,  
20 and shipping/delivery date.

40 Similarly, the system 10 provides a Returns/Exchanges function to offer the  
ability to the consumer to return a product into the supply chain and for the supply  
chain partners to be treated correctly in this instance. Consumers must have the  
45 ability to exchange and return goods, within standard legal obligations. During use  
25 of the TEA system 10, it is critical that consumers do not perceive their actions as  
irreversible. Accordingly, the system 10 provides the ability of fulfillment to update  
50

5 the order history, to implement unwinding payments, and to deny returns or  
exchanges to specific product-driven purchases, such as special purchases,  
10 perishables, and intellectual capital-type products such as copyable software. Other  
aspects of the returns/exchange function include the ability to provide return labels  
5 on boxes on products sent from a fulfillment center.

15 The system 10 also includes a Consumer Inquiries function, to offer the  
ability to the consumer to communicate with the TEA system 10 and to send an E-  
mail to human service personnel for further action. Consumers need to feel that  
there is a person behind the machine and that they always have the option of  
20 speaking to a human. All inquiries may be captured via forms and then forwarded  
internally via E-mail for personal processing by service personnel. Accordingly, the  
system 10 processes the form or note from the customer to be routed into a queue for  
25 further processing. Some, but not total, automation may be implemented based on  
the type and subject of the consumer inquiry. The system 10 may also track the  
15 number and types of problems with specific products, as well as the responses to the  
customers and the outcomes of the inquiries.

30 The system 10 also performs Account History functions, in which the system  
10 has the ability to capture order history from registered members, and to display  
35 the information to the consumer. The ability of consumers to see their history of  
transactions with the TEA system 10 adds to a sense of stability and trust of the  
20 brand. The system 10 uses existing TRANSACT functionality to keep an order  
40 history of individual registered members.

In addition, the system 10 provides a Lost Password function, to allow a  
consumer to change his/her password on-line or via the call center, in order to reset a  
45 forgotten password, or to merely change a password in a secure and verified manner.  
25

The system 10 provides a TEA system information function to display,  
except for password information, other relevant static information, such as terms,  
50

5 liability, phone numbers, contacts, etc. It is especially important that consumers  
have an easy way to find information about the TEA system 10. The information is  
presented in a clear manner and is relatively easily accessible to facilitate ease-of-use  
10 of the system 10 by the user.

5 The system 10 may optionally provide an Interactive Telephone Voice  
Response (IVR) function, using known IVR systems to allow the consumer to access  
15 order information via the telephone, so that consumers are not limited to on-line use  
of their computers to check order status. Consumers order from the TEA system 10  
using a computer, but order status and other information may be supplemented with  
20 10 telephone functions through IVR. Such IVR functions utilize consumer voice  
recognition and order status and information read-back.

#### 25 CONSUMER SERVICE CENTER FUNCTIONS

For consumer service center processing, the system 10 also performs a  
15 Registration function, to provide the ability for the Call Center to register consumers  
for ongoing membership with the TEA system 10. Registering users provides a  
30 large benefit to the TEA system 10 as it can build brand loyalty and allow for  
targeted campaigns. Allowing for registration via the call center provides the system  
35 10 with another channel to register users using Open Market TRANSACT. This  
20 enables users to perform quick buying by relying on a pre-entered PIN or password,  
and so to perform one-click transactions. Users may also be offered options such as  
40 to automatically receive offers, to have user information automatically used for  
receiving such offers and promotional information, and to select and/or enter credit  
card information for default payment processing. The registration settings may  
45 25 facilitate and/or drive the use of order-taking templates for faster use and  
transactions by users.

5           The system 10 also implements a Check Order Status function, to permit a  
call center using a TEA system extranet site to check individual consumer orders,  
and to allow the consumer to check orders via the World Wide Web if there is a  
10           problem or the consumer is unable to access the TEA system website. This  
5           implementation is based on Open Market TRANSACT to provide the users with  
order status, such as the order being okay, declined, or cancelled, as well as to check  
15           where a shipment is.

          The system 10 also implements a Cancel Order function to give the ability  
for the call center to cancel an order per a consumer's request. This function may be  
20           10           handled by the one-hour fulfillment delay, and might include the ability to cancel the  
order through an API with the fulfillment house.

          Similarly, the system 10 provides a Change Order function to allow the call  
25           center to change various attributes of customer's order. All features that are  
available through the TEA system self-service are accessible via the service center.  
15           This function will be simplified by the one-hour fulfillment delay, and may include  
30           the ability to modify the order through and API with the fulfillment house, such as  
changes in quantity, address, size, features, payment method, and shipping date.

          Similarly, the system 10 provides Returns/Exchanges functions to the call  
35           center to authorize returns and exchanges. The customer has the ability to  
20           return/exchange products and services. This feature offers an enhancement over the  
self-service site since the service center is able to authorize changes and provide  
40           additional information to the consumer. The returns/exchanges function is handled  
by the inclusion of a return label on all packaging, allowing a customer to simply  
place the label on the package and place the product back in the mail. No pre-  
45           25           authorization may required, but certain exclusions may apply such as product-driven  
restrictions including perishables, and returns may include money-back guarantees  
as well as identical or equivalent replacements.

5           The system 10 also includes a Consumer Inquiries function to allow a user to  
communicate with the TEA system 10 and to forward such inquiries to human  
personnel for handling. Customer service has a major effect on how customers view  
10       the experience of interacting with the TEA system 10. Good customer service can  
5       create extremely loyal customers while bad customer service can cause customers to  
never use the service again. The Consumer Inquiries function includes a mechanism  
15       for E-mailing issues and matters such as complaints, as well as an issues-tracking  
mechanism, which may also be included in the E-mail system.

          The system 10 also provides a Telephone Order Completion function to give  
20       the ability to a customer to call into the call center and provide the final order  
information, such as credit card info that the customer is not comfortable sending  
over the Internet. Some customers may still be unwilling to finalize credit card  
25       transactions over the Internet. By giving these late adopters the ability to finalize the  
transaction over the telephone, the number of potential customers may be increased.  
15       The call completion information may be stored in a front-end order database, which  
30       may employ known third-party software and/or hardware.

          With other call center functions, the system 10 provides a Change Password  
function to give a consumer the ability to call the call center to change and/or look-  
35       up a forgotten password. The Change Password feature may be available through  
20       the service center.

#### 40                                   SYSTEM EXTRANET FUNCTIONS

          Through an extranet, the system 10 supports a Campaign Reporting function,  
which may be a password-protected representation of campaign information over the  
45       extranet. Partners as well as suppliers, venues, and agents have the ability to access  
25       campaign information so they can evaluate the success of the campaign. Campaign  
statistics may be gathered and calculated relative to the numbers of impressions,  
50

5 click-throughs, and transactions tallied by product, by creative characteristics or  
source, by day, by time period, by webpage, by transaction values, by demographics,  
etc. The statistics may also measure fulfillment performance, quality of information,  
10 and other marketing and shipping statistics.

5 Such campaign reports may be downloadable and/or exportable, and so the  
system 10 has the ability to support franchise partners by allowing them oversight  
15 through permissible and competitor-secure views of the performance and use of the  
system 10.

The system 10 also performs Statement of Account functions to give the  
20 10 ability of supply chain partners to see their current account status as well as some  
trends that allow them to forecast in the very near term. For example, account  
history with a product-by-product breakdown as well as over different time periods  
25 may be stored and reported. The income pipeline and any charge-backs may be  
tracked. Such reports may be downloadable, extractable for export, and password  
15 protected, for example, on multiple levels of security such as company over  
30 company/subsidiary or inter-company security.

The system 10 also performs a Tracking Queries function to provide the  
ability to supply chain partners to check product status within the delivery cycle, to  
35 give supply chain partners the ability to see exactly where the product is in the  
20 fulfillment lifecycle. The system 10 may utilize and/or incorporate a lead wholesaler  
and therefore the need to communicate product status through multiple supply chain  
40 partners may not be required. Details for each component of a supply chain may be  
monitored, and alarms or status messages may be generated to proactively address  
problems in the supply chain prior to dates for shipping of products.

45 25 The system 10 also implements a Stock Queries function, such that time and  
effort is saved for the TEA system employees if suppliers make their own  
adjustments on stock levels. Forecasts, histories, and income rates such as value-



5 added effects may be monitored and visually graphed to monitor and decide on the  
granting of more stock by suppliers in open-ended supply arrangement, as well as to  
10 monitor the changing stock levels of fulfillers and other stock management  
functions, such as tracking and changing of product availability levels.

5

### SALES MANAGEMENT FUNCTIONS

15 The system 10 also provides reporting functions and demo/prototyping  
functions to permit sales managers to generate reports and to demonstrate and test  
new features of the system.

20 10

### SUPPLY CHAIN SETUP AND MAINTENANCE FUNCTIONS

25 The system 10 also includes a setup/maintain partner function to perform the  
basic operations of setup and maintenance of partner information in addition to and  
beyond the information that is stored for operation of the system. For example, the  
15 roles, contacts, names, and addresses of partners may be maintained to provide the  
ability to store and track basic information on partners.

30 Similarly, the system 10 includes a vendor set-up and maintenance function  
to perform the setup and maintenance of supplier information and parameters of  
35 business relationship, including supplier information, bank and payment details,  
20 supplier ID numbers, contacts, location, addressees, product set, and supply chain  
partners.

40 In addition, the system 10 includes a vendor agreement set-up and maintain  
function to perform the setup and maintenance of specific supplier agreements  
encompassing one or more campaigns, including information on bank and payment  
45 details, contacts, supply chain information, configuration selection, campaign links,  
25 products, locations, addresses, timing of payments, and expiration of agreements.

5 The system 10 also includes a fulfillment set-up and maintenance function to  
facilitate the creation and maintenance of fulfillment partner information, such as  
name, contact information, address, bank and payment details, SLAs of products,  
10 suppliers, shippers, geographic regions, and technical communication details.

5 Similarly, the system 10 performs a Fulfillment Agreement Maintenance  
function to perform the setup and maintenance of parameters for working with a  
15 fulfiller over a given time period and/or campaign, such as SLA turnaround time  
shrinkage, and quality such as breakage information. Geographic restrictions and  
pricing may be specified, as well as packing information, such as company labeling,  
20 invoices, and return slips. Technical communication details and return procedures  
and parameters may be stored and maintained.

The system 10 also performs Shipper Set Up and Maintenance functions, to  
25 perform the set up and maintenance of shipper relationship information, such as  
entry and maintenance of shipping tables, bank account and payment information,  
15 payment terms, SLA information, addresses, contact information, geographic scope,  
30 timing, technical communication details, and return procedures and parameters.

The system 10 includes Franchise grouping functions for the setup and  
maintenance of Franchise/Franchisee groups of Vendors/Venues to simplify the job  
35 of management, to give better reports, etc.

#### 20 VENUE SETUP AND MAINTENANCE FUNCTIONS

40 The system 10 includes a Venue set-up and maintenance function to perform  
the set-up and maintenance of venue specific information including and above the  
information that is stored in the selected packages, such as campaign specific-buying  
45 information, URLs, ad types, ad restrictions, names, contacts, bank accounts or  
25 payment information, target CPM, and categorization of the venues.

5 Further, the system includes a Venue Agreements Maintenance function to  
perform the setup and maintenance of umbrella understandings and agreements  
under which campaigns can be booked. The ability to monitor key data around  
10 venue agreements, such as the number of impressions, timeframe, location of where  
5 in a website or webpage an ad is served, the effective CPM, and timeslots are  
specified, in order for the TEA system 10 to function as a business.

15 The system 10 also includes Venue Media Buying functions to provide the  
ability to "purchase" or allot within the system 10 chunks or groups of media against  
agreements. For such allotments, volumes of impressions, specifications of  
20 10 websites, timeframes, transfer of pre-purchased media, and identification of brokers  
involved, if any, are employed.

#### 25 CONTENT MANAGEMENT FUNCTIONS

The system 10 includes an ad style template management function to  
15 facilitate the creation and maintenance of ad templates, such as sizing, color, and  
other attributes, as well as to create, update, and delete ads, to store links of such ads,  
30 and to store metadata about the ads.

Similarly, the system 10 may provide a Construct Ad function to pull  
35 together ad and order information from templates with graphics to create ads through  
20 and for transactions. The construction of ads includes basic graphics and text set up  
in components that may be pulled together in completed ads, as well as multimedia  
40 support. Variable components in a fixed ad model, such as the price of a product,  
may be specified, and the ads may be constructed from multimedia, multiple form  
factors, links to digital offers, and links to other websites.

45 25 The system 10 also provides an order form template function for accessing  
and maintaining a library of templates which have been pre-built.

5           The system 10 includes a Product Information function to permit the creation  
and maintenance of product specific information to be displayed on ads using  
AdManager functionality. Thus, ad copy, ad graphics, and ad multimedia are  
10 interwoven as TEAs.

5           The system 10 also performs a Workflow function for routing raw templates  
through final ads and through steps in the creative process and campaign  
15 management. An automated workflow system improves speed, efficiency, and  
reliability of the content creation process. Accordingly, hard or soft blocks between  
steps in the creative process and hard or soft approvals between blocks may be  
20 supported, for example, to require the ad or campaign administrator to either sign off  
for an ad which is stored in memory, or merely actuate an approval command.

25           The system 10 may also include a Version Control function to perform the  
attachment of version information to ads, allowing for auditability, and for the  
security of having standard procedures in place that give a sense of comfort over the  
15 development and use of ads. The version control may require that, once a version of  
an ad is set, it cannot be changed, and the version information may include date  
30 sensitivity, ad author/creator information, and approval of the particular version of  
the ad.

#### 20           CAMPAIGN MANAGEMENT FUNCTIONS

35           The system 10 also provides a Pricing Strategy function to perform the setup  
and maintenance of flat pricing and the set up and maintenance of dynamic price  
40 optimization parameters, to be able to set up pricing for products. Dynamic price  
optimization improves the conversion rate of impressions into transactions, thereby  
45 increasing revenue and income. A known product called Macromedia Generator  
25 may be used for dynamic pricing. The information needed to make a pricing  
decision must be available real-time in terms of on-line reports. Thus, flat or  
50

dynamic pricing or life-cycle pricing may be supported, as well as system-specified or supplier-specified changes in prices. Other information identifying perishable goods, available quantities of products, and responses to offers may tracked, and prices may be adjusted based on the number or quality of responses to offers.

The system 10 may also support Partner Splits Set-up and Maintenance functions for the setup and maintenance of the rules by which revenue is distributed to the TEA system 10/partners after a transaction, for example, using flat rates, percentage rates, hurdles or sales targets, or scaling of splits.

The system 10 also supports a Venues for Ads function, performed by Accipiter to allow for the selection and de-selection of venues where ads can be served. Logic and rules may be implemented to determine where or not where ads are to be displayed, as well as to specify specific venues only where a particular ad may be displayed, and so venue of ads is controlled by categories of ads or venues, or by types or specified websites.

The system 10 also supports functions for the set-up of cross-selling strategies, for identifying product sets for cross/up-sell and setting up triggers based on user information or other information. Setting up product sets for cross-selling allows for quick presentation of related products, increasing the chance of higher revenue per transaction. Promotional cross-selling pricing increases the chance of conversion by offering a price incentive for multiple product purchases. The system 10 manages cross-selling, such as what products to link with what, etc. Generally consumers are attracted to the "quick and easy" transaction, but are also amenable to cross-selling. Accordingly, the system 10 supports product linkage, such as always linking two or more products together, as well as linking multiple products specified on a list or table. The neural net functions may also be used to learn preferable linkages between two or more products, and so to link corresponding ads

5 automatically. In addition, the system 10 may track and enforce supply chain  
restrictions, as well as promotional cross-sale pricing.

10 The system 10 also implements a Selection of Ads/Rotation Strategy  
function using the Accipiter AdManager component for the selection and de-  
5 selection of ads that can be served, and the development of the strategy driving  
which ads are to be placed where and when.

15 The system 10 also performs an Effective CPM Tracking function for  
calculating the effective CPM rate and for analysis of the effective CPM versus a  
targeted CPM. The effective CPM may be calculated by campaign, by product, by  
20 venue, and/or by supplier using the number of impressions and/or the number of  
10 clicks or actuations of ads, which may be implemented by the known Matchlogic  
software.

25 The system 10 also performs a campaign set-up and maintenance function for  
the creation and maintenance of campaigns using Accipiter, for example, to specify  
15 the name, product, timing, and supply chain partners of a campaign.

#### 30 PRODUCT MANAGEMENT FUNCTIONS

35 The system 10 also performs a set-up and maintain product function to  
specify product information necessary to manage products with supply chain  
20 partners. This involves the storage and management of several variables, and  
customization in order to act on their changing values properly. Known inventory  
40 systems may be used for maintaining the informational requirements of product,  
such as supplier information, pricing, stock level maximums, current stock amounts,  
trigger stock levels, product name, product samples, product information, shipping  
45 parameters, metadata, identified product managers, supplier contacts, fulfillment  
25 contacts, shipper information, and lead time to restock products.

5           The system also includes a setup and maintain product group function to  
create and update product information based on supplier price, with such  
information including product names, group names, group information, group  
10 managers, and metadata about products and groups of products.

5           The system 10 further includes a Dynamic Supplier Comparison function to  
provide the ability in a multi-supplier model to rate suppliers and choose the best  
15 supplier to provide a product. In a multi-supplier model, this provides the value of  
an automatic comparison and selection of the proper product by supplier.

#### 20           10           SUPPLY CHAIN MANAGEMENT FUNCTIONS

          The system 10 also implements a Low Inventory Alert function, to determine  
once inventory falls to or below a designated level, and to generate a warning  
25 message sent from the TEA system 10 to supplier/fulfiller or to an internal supplier  
manager, which helps to automate the TEA system 10 operations. In addition, EDI  
15 re-ordering may be performed.

30           The system 10 also implements a Request More Inventory function to  
facilitate increases in a current allocated inventory, for example, by sending an EDI  
message to reorder the inventory in response to any changes in inventory level. In  
35 addition, the system 10 may allow a supplier or fulfiller to log onto the extranet  
20 website of the system 10 to change the inventory levels.

          The system 10 also includes a setup and maintain supply chain function,  
40 which connects together possible supply chains for selection to be used in  
campaigns. In a high volume multi-supplier environment, this functionality  
significantly eases operational burden by associating entities with roles in the supply  
45 25 chain.

## FINANCIAL TRACKING FUNCTIONS

The system 10 includes a Regulatory Reporting function for tracking accounting information in order to produce financial accounts including taxes, accruals, pre-payments, and cost classifications.

The system 10 also includes a Statement of Accounts function for tracking accounting information in order to produce financial accounts by supply chain entity and venue, including reports indicating revenue with details, costs with details, total transaction details, forecasts, bad debts, percentages paid or generated, and status of payments paid by a specific time.

## MANAGEMENT REPORTING AND INFORMATION FUNCTIONS

The system 10 includes a shipper management information (MI) function to provide information to the TEA system 10 to facilitate shipper management, and so the ability to provide information on hand that shows the quality and volumes of shipper interactions as part of the supply chain adds large value to the shipper management process. Returns, fees analysis, timing, quantities, and use of a shipper's tracking system for complaints may be processed and reported.

Similarly, the system 10 provides a supplier MI function to provide information to the TEA system 10 to facilitate supplier management and so to have information on hand that shows the quality and volumes of supplier interactions as part of the supply chain, which adds large value to the supplier management process. Returns, cost analysis, stock levels, delivery time to fulfillment, complaints, and performance may then be processed and reported.

In addition, the system 10 may provide a venue MI function to provide information to the TEA system 10 to facilitate venue management and so to have information on hand that shows effective CPM, volumes and number of impressions served, site performance click-throughs, transactions, and other usage analysis, as



5 well as consumer profiling, which adds significant value to the venue management and sales process.

10 Similarly, the system 10 provides a product MI function to provide information to the TEA system 10 to facilitate management of products, and thus to  
5 have information on hand that shows pricing, stock levels, effective CPM, and performance by product, including graphical reporting such as demand curve generation, which is an invaluable tool for the TEA system product managers.  
15

The system 10 also provides a fulfillment MI function to provide information to the TEA system 10 to facilitate fulfillment management, and thus to have  
20 10 information on hand that shows the quality and volumes of fulfillment interactions as part of the supply chain, which adds large value to the fulfillment management process. Fees analysis, timing, complaints, and returns may be monitored and reported.  
25

The system 10 may also provide system MI functions to provide information  
15 to the TEA system 10 to facilitate the TEA system management aggregate information, and so to monitor the "health of the business" such as overall CPM and performance of sub-systems and components of the system 10 such as downtime, average ad service time, etc. Volumes of click-throughs, transactions, product,  
30 number of suppliers, vendors, and venues may be monitored and reported.  
35

20 The system 10 may also provide consumer MI functions to facilitate consumer management by providing an aggregation of information that assists in the targeting of ads and feedback on the transaction experience. Information may be monitored and reported, such as membership information, frequency of visits, preferences in categories, repeat business, tendency to cross-buy, geographic  
40 profiles, and usage such as click-throughs, transactions, and rain checks.  
45 25

The system 10 also performs a Time Period function to provide information to assess seasonal and timing impact to the TEA system 10. Time Period MI  
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5 aggregates transaction experience to give insight as to conversion rates during times  
of day/month etc. which helps in the improvement of the targeting of ads. The  
10 assess information may include time of day, date/month, holidays, weekends versus  
weekday activities, and work versus non-work hours, including time zone issues.

5 The system 10 may also provide sales MI functions to generate and report  
information to the TEA system 10 to facilitate sales management "aggregate  
15 information" for tracking and evaluating the effectiveness of sales activities, such as  
by the number of calls, amount of collateral given out, number of hits on a website,  
and number of visits.

20 10 In addition, the system 10 has a geography function to manage information  
involving the geographical spread of the TEA system 10 for evaluating the TEA  
system performance across geographical areas according to country, region, and  
25 performance of ads by region.

#### 15 ALARM SYSTEMS FUNCTIONS

30 The system 10 includes Alarm Systems functions for providing the ability to  
detect and suspend abnormal activity, and notify relevant parties, to monitor and  
detect abnormal activity. For example, an unusually high order rate may indicate a  
35 false price, which could put the company at financial risk. An alarm system is used  
20 which aborts a banner ad in such alarm circumstances. It is essential to maintaining  
a strong, service-oriented brand that the TEA system 10 never presents an offer that  
40 cannot be fulfilled. Accordingly, the system 10 provides rules-based monitoring of  
ad activity, and suspension of ad serving for a particular product, as well as  
transaction blocking and notification to consumers. Notifications of abnormality  
45 25 and subsequent blocking are provided to appropriate partners and to  
operations/product managers, for example, by E-mail.

## SYSTEM FUNCTIONS

The system 10 also includes an auditability function to track by whom, what and when changes are made in the system 10, including complying with legal requirements for storing data such as carbon copy (CC) transactions, as well as storing transaction details for customer audits.

The system 10 also includes Security functions for maintaining a secure environment protecting the systems and the data, such as defenses against unauthorized changes to data and the system 10, to control access for secure connections for transactions, data encryption of transactions and in databases, and maintenance of on-line and off-line user IDs and authentication/authorization mechanisms.

The system 10 also provides performance functions for establishing acceptable time levels for serving and transaction processing, such as ad targeting and serving to manage access burdens on webpages and websites, as well as providing sufficient transaction performance to avoid discouraging customers from completing transactions.

The system 10 also provides a scalability function to increase scope of operations to levels set in business requirement documents, such as specifications for volume, digital media including overhead and bandwidth, and mirror sites.

The system 10 also operates a high availability function to engage in operations substantially at 100 % 24/7 availability, relative to cost trade-offs.

The system 10 provides Disaster Recovery functions including contingency considerations for unforeseen events, such as fire, flood, disk crashes, etc., to implement operations plans and hot/active stand-by machines or systems.

The system 10 also includes a Learning Systems function to provide continued refinement-of-approach enabled by systems and components, such as the neural net usage and the rule-set usage.

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## INTERNATIONALIZATION FUNCTIONS

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The system 10 also performs a Shipping Charges function to calculate charges based on shipping destination and fulfillment location. The ability to calculate for multiple shippers and/or multiple shipping methods adds an element of choice that is attractive to many potential customers. Flat rate charges, dynamic pricing calculations, multiple shipping-type options, multiple shippers and types of shipping, query fulfillment for shipping and cost in real-time, and/or the use of real-time information, for example, to perform real-time comparison for determining best prices, are performed using Open Market's TRANSACT.

25

The system 10 also includes an address function to support differing address formats. To ensure timely shipping, the system must capture accurate addresses including all relevant fields, including the handling of varying fields by country.

30

The system 10 also include a tax calculation function to provide the ability to calculate appropriate tax rates according to shipping destination and/or fulfillment location. The tax calculation function is handled by TRANSACT within the U.S. and by other known systems for internationalization of taxes.

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The system 10 also includes a product differences function to serve the appropriate products in the appropriate locations. Providing products that are appropriate to the geographic location of the consumer, in terms of cultural as well as usability issues, reinforces the TEA system 10 as a service-oriented, customer-focused brand. AdManager is capable of identifying the visitors' ISP and using an ISP lookup table to determine geographic origin of the customer and to identify different international and local standards of the customers such voltage and wattage requirements of appliances, date/time/calendar formats, and controversial products to avoid marketing fiascoes.

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5           The system 10 also performs a language function to support multiple  
languages on-line and off-line, for reinforcing the TEA system 10 as an international  
service-oriented, customer-focused brand. Sub-systems or sub-phases of the TEA  
10       system 10 may be created according to country and/or to language spoken, and so to  
5       provide on-line multi-language ads and transactions, on-line customer service,  
mirror sites, extranets, and the ability of customers to select a specific language for  
15       engaging the system 10 in transactions. Off-line support may be provided by the  
system 10 including a multi-lingual help desk, and packing slips and brochures in  
different languages.

20       10       The system 10 also includes an Operations Service Center function to  
establish "mirror" operation centers where appropriate, to provide all serviced  
countries with a consistent level of service.

25           The system 10 also includes Currency functions to allow a consumer to make  
purchases and vendors to make sales in appropriate currency, as described herein.

15       Quoting in multi-currencies increases conversion rates significantly with customers  
30       who are resident in countries other than the US. These users are more likely to  
purchase on an impulse basis if they are not required to make a currency calculation  
in their head, or look up the currency conversion if they are not familiar with the  
35       exchange rate. The ability to tailor the banner price to country of origin gives a very  
20       high business benefit.

40           The system 10 also includes a Multiculturalism function for performing a  
tailored approach according to cultural idiosyncrasies, such as colors, language, and  
preferred products, and so to reinforce the TEA system 10 as an international  
service-oriented, customer-focused brand.

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NUMEROUS ADVANTAGES AND USES

The TEA system 10 controls the offers made to customers. Product stock and order fulfillment are completed by establishing relationships with one or more large wholesalers across a range of popular products, such as videos, books, and shrink-wrapped software. Ad space is obtained from several large websites in exchange for a share of any resulting revenue. The TEA system 10 controls the details of product offers made to customers from the short list of product options agreed with the wholesaler.

By working proactively, using the real-time information from day-to-day operations to amend and refocus product offers, marketing success may be built much more rapidly, and with less risk, than if reliance is made upon selling the outsourced service to individual vendors.

The TEA system 10 is proactive in agreeing with the wholesaler on the products to offer, and in amending the product offers based on operational experience and a mix over time. The TEA system 10 is also capable of an outsourced processing role, to act as an outsourced service provider to vendors, advertising agency intermediaries and websites. The vendor may control the offers within the context of the TEA system brand values, with the TEA system 10 providing transaction processing and information services in exchange for a share of revenue. Ad space may normally be obtained by vendors or intermediaries.

Using the system 10, there are further opportunities to establish collaboration partnerships with other companies to help promotion and sales of the TEA system services. The types of company which may be approached include:

- significant mail order catalog companies;
- on-line ad agencies and networks; and
- software service providers such as Computacenter in the UK, who may offer the "buy button" service of the system 10 to their customer base.

5           The services of the system 10 are targeting a market of active interest to potential customers, and the infrastructure can support many other potential services, generating additional revenue for limited additional investment in the future.

10           Using the system 10, an integrated service is provided which enables the  
5 consumer to interact within the confines of an advertisement window to complete a purchase, rather than just obtain information about a product.

15           Using the system 10, the website owner gains additional advertising revenue, while increasing the retention of customers on his/her website, unlike in the prior art in which on-line advertising forces customers to exit the venue site and "hot link" to  
20 10 the vendors own site in order to make a purchase.

          In the system 10, the vendor gains additional sales, through using advertising spend to generate direct sales revenue, using an outsourced service which requires  
25 very limited effort on the part of the vendor. The customer gains immediate access to product offers without having to go and find them on different webpages, and the  
15 TEA system 10 thus generates revenue.

30           The service is particularly attractive for:

          impulse purchases: gifts, items sold at a discount to normal high street prices, offers set in a relevant context; for example, a CD for sale on a music  
35 site;

20           perishable items such as tickets, where the owner needs to sell goods by a certain date, including the desire to reduce price as deadlines approach; and

40           items in which there is limited stock availability, as sales are only generated by putting an offer in front of a consumer.

          The system 10 utilizes the data capabilities and the global extent of the  
45 25 Internet as a preferred communications medium, but the system 10 may also be used in other interactive digital media. In particular, advertising on digital interactive TV

5 services, which are likely to attract significant mass market audiences over the next  
few years, provide a very attractive marketplace for the system 10.

10 Ad serving software is the software that enables adverts to be served across a  
range of sites, with results monitored in terms of customer response or click-  
5 throughs. High volume ad serving is a specialized market, since the big IT  
companies have generally chosen to buy such specialized software in, rather than  
15 build their own; for example, MICROSOFT uses Accipiter software across its  
websites.

20 There are a wide range of companies offering transaction software, including  
10 many of the big IT companies such as IBM and MICROSOFT, as well as smaller  
specialists such as Open Market. There are also a wide number of companies  
offering outsourced transaction processing services.

25 The TEA system 10 is ideally placed to provide the disclosed service and to  
meet the market demand from commercial websites, distributors and vendors who  
15 are actively seeking ways to exploit the revenue potential offered by on-line  
transactions, and using a payment processing system having payments capability, in  
30 particular, for the ability to handle multi-currency acquisition.

35 TEA represents an opportunity to establish a significant technological and  
operational infrastructure in one of the pivotal E-commerce marketplaces, to ensure  
20 the technological and international linkages to compete in the future of electronic  
commerce and international markets, since the TEA system 10 acts as both a  
40 distribution intermediary and international payments provider. With TEA, the TEA  
system 10 operates as a product integrator, bringing together a selection of services  
on behalf of a buyer and building on existing competencies.

45 25 In addition, the system 10 and its infrastructure can support many other  
potential applications, generating incremental revenue from limited additional



5 investment. Two examples are market research and other consumer response services.

10 The system 10 serves adverts; take orders including receiving details of goods, customer, payment, etc; manages virtual stock levels, i.e. to be capable of  
5 selling up to the available number of items and no more; managing the processing of orders and passing details through to the vendor or distributor, or their agent, for  
15 fulfillment, as well as a bank to process payments; handling inquiries, either on an automated basis through a website or through a customer service agent; and monitoring the performance of campaigns.

20 10 The TEA system 10 offers a fully outsourced service. Using the service, a vendor trades on-line with almost no incremental investment. The TEA system 10 can also compete directly with competitors by offering a menu selection from the  
25 full service offering if some vendors prefer to provide some elements themselves.

30 In addition, during operation, the TEA system 10 generates additional assets:  
15 a transaction database, a customer database, and branding.

35 The transaction database is a significant driver of revenue in facilitating better targeting through knowledge of: customer buying patterns; identification of which products maximize revenue by site and by type of customer; identification of  
40 what makes advertising effective; and the impact of price changes on demand. This  
20 knowledge is applied dynamically, with extensive automation, to maximize value.

45 As orders are taken, a customer database is created, which may be done proactively by inviting customers to register with the TEA system 10 by entering their name, address and credit card details for orders. Repeat purchasers may then  
50 only have to enter a PIN or password to complete a transaction. Loyalty schemes  
25 may then be used with registered customers, and product offers can be E-mailed to customers, reducing the reliance on advertising over time.

5 Over time, branding of the TEA system 10 is achieved by on-going exposure  
to consumers and by association with established brand names of vendors and  
branded goods on the many adverts served. The branding represents good value  
10 product offers, convenient services, and secure and reliable transactions.

5 The TEA system 10, through the Internet and/or other communication media,  
is a global business system, with multiple channels of distribution. A first channel  
15 to market for the TEA system 10 reduces the reliance on vendors in the first  
instance. This first channel primarily focuses on selling services to major websites,  
thus building a market position rapidly, and gaining expertise and transaction  
20 knowledge. In the first channel, the TEA system 10 may use contracts with  
distributors for supply of popular product lines such as PC software, books, CDs,  
and flowers. The TEA system 10 may then market these products directly to  
25 customers through on-line advertisements delivered on targeted websites.

The TEA system 10 operates as an agent, enabling trade to take place  
15 between a distributor and end consumer, and contracts may be established between  
the consumer and the manufacturer/distributor, enabling the TEA system 10 to avoid  
primary liability for bad debts or faulty goods. The TEA system 10 may also pay  
both distributors and websites a percentage share of transaction value, ensuring that  
35 costs vary in proportion to revenue. With the TEA system 10 controlling the rate at  
20 which adverts are served, through direct deals for advertising space with websites,  
the transaction database may be built rapidly. The TEA system 10 may also  
40 experiment to identify which products sell most effectively on impulse, optimum  
pricing, advertising execution, etc.

A second channel to market includes providing the system 10 on an  
45 outsourced basis to vendors and websites. As well as providing an integrated  
service, requiring little from the vendor, learning from the transaction database  
enables the TEA system 10 to add value through advice on which products sell well,  
50

5 on which websites, and to which customers. The vendors may themselves contract  
either directly or through an agency with the website, and through either TEA  
10 system introductions or the vendor's existing contacts to the payments provider and  
shipping/fulfillment services.

5 The vendor may also contract with the TEA system 10, which may charge  
fees to the vendors based on a percentage of transaction value, with a floor limit for  
15 small value items, to ensure revenue is in line with costs. There may be additional  
charges to the vendor for serving adverts, to ensure costs are covered. Premium  
service rates may also be charged for increased levels of advisory services such as  
20 price optimization advice.

This second channel to market enables the TEA system 10 to focus its efforts  
25 on the core transaction processing service, build volume quickly, obtain additional  
margin based revenue, and leverage the value in the transaction database.

Franchising may also be used with the system 10 through collaboration  
15 agreements negotiated and involving selling the TEA system 10 services to  
franchisee websites. Thus, the system 10 may provide an outsourced transaction  
30 enabled website service for small or medium sized businesses, as well as performing  
operating market research and other customer response services, retailing directly  
35 from the TEA system website, and operating other advertising network services,  
20 such as website networks, making it easier for vendors to acquire space. In addition,  
arbitrage services may be engaged through the system 10 to implement the block-  
40 buying of ad space from websites for use by the TEA system 10 or on-sale to  
vendors.

Additional opportunities outside the Internet include the expansion of the  
45 TEA system 10 into other digital interactive media such as digital TV, the use with  
25 advertising advisory services by extrapolating on-line results to off-line media, and

5 packaged expert services for new product development, since the system 10 is able  
to test market propositions with small quantities of stock.

10 The TEA system 10 may be thought of as providing a "click here to buy"  
service. An important component of this is an integrated easy, automatic payments  
5 service, which may use NatWest as a default or preferred payments provider for all  
channels to market.

15 The TEA system 10 outsources operations to leverage other companies  
experience in operating many of their existing businesses on this basis. There are a  
number of advantages: the cost base is largely variable with volume; rapid  
20 development of the TEA service is possible, and hence time to market is short; and  
there is a relatively low requirement for directly employed staff.

25 In keeping with the "virtual company" approach of the system 10, IT  
development may be outsourced using a "plug and play" philosophy to use standard  
software components, with systems integration to provide the overall integrated  
15 TEA service.

30 The revenue from the distributor model of the TEA system 10 comes from  
the margin the TEA system 10 makes on goods sold. Through introduction of  
significant volumes of orders, the TEA system 10 can use negotiated prices for  
35 supply at a significant discount, for example, about 40 %, to a typical sale price.

20 This discount may be spread across: the venue, in return for ad space; the  
consumers, in the form of a discount, to encourage them to buy; and fulfillment,  
40 with shipping being an extra charge to the consumer.

45 The nature of the TEA system 10 permits experimentation with different  
pricing options, trading off margin for transaction volume, and so to optimize the  
25 revenue received.

## Claims

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## CLAIMS

## WHAT IS CLAIMED IS:

1. An electronic commerce (E-commerce) system (10) comprising:  
an advertisement (ad) database (43) for storing a plurality of ads; and  
a web server (26) operatively connected to a browser (12) of a user  
for receiving user characteristics data from the browser (12), for causing a display of  
a first ad having graphic user interface (GUI) responsiveness, from the ad database  
(43) corresponding to the user characteristics to provide targeted ad delivery, and for  
receiving user inputs to actuate the GUI-responsive ad to engage in and to complete  
an E-commerce transaction corresponding to the ad.
2. The E-commerce system (10) of claim 1, wherein the web server (26)  
includes:  
means (34), responsive to the user characteristics, for dynamically  
targeting a the first ad corresponding to the user characteristics to be displayed to the  
user through the browser (12).
3. The E-commerce system (10) of claim 2, wherein the dynamic  
targeting means (34) includes:  
a neural network (40), trained using a plurality of user characteristics  
of a plurality of registered users, including user buying histories and user profiles  
and interests, for selecting the corresponding first ad to be displayed to the user.
4. The E-commerce system (10) of claim 1, wherein the web server (26)  
displays the first ad on the browser (12) whenever the user is viewing a  
predetermined webpage associated with the first ad.

5                   5.     The E-commerce system (10) of claim 4, wherein the first ad  
provides E-commerce functionality associated with the content of the predetermined  
webpage regardless of the ability or inability of the predetermined webpage to offer  
10                   such E-commerce functionality.

5                   6.     The E-commerce system (10) of claim 4, wherein the predetermined  
15                   webpage is an on-line catalog; and  
wherein the first ad is an entry displayed in the on-line catalog.

20                   10       7.     The E-commerce system (10) of claim 4, wherein the first ad  
corresponds to a first product, and the predetermined webpage corresponds to a  
second product, thereby co-branding the first and second products through the  
25                   pairing of the first ad and the predetermined webpage.

15                   8.     The E-commerce system (10) of claim 1, wherein the web server  
30                   includes:  
means for receiving a currency selection from the user; and  
means for engaging in and completing the E-commerce transaction  
35                   using monetary values in the selected currency.

20                   9.     The E-commerce system (10) of claim 1, wherein the ad database  
40                   (43) includes promotional offers, including a first offer associated with the first ad;  
and

                    wherein the web server (26) includes:  
45                   25       E-mail means for generating E-mail messages to an entity  
associated with the user to convey the first offer thereto.

5                   10.     The E-commerce system (10) of claim 9, wherein the entity  
associated with the user is the user.

10                   11.     The E-commerce system (10) of claim 9, wherein the entity  
5 associated with the user is a friend of the user specified by the user.

15                   12.     The E-commerce system (10) of claim 9, wherein the E-mail  
messages sent to the entity include information about the first offer for later review  
by the entity at the E-mail address to which the E-mail messages are sent.

20                   13.     The E-commerce system (10) of claim 1, wherein the browser (12)  
operates on a computing device executing application software implementing the  
25 browser (12) and connecting the browser (12) to the web server (26).

15                   14.     The E-commerce system (10) of claim 2, further comprising:  
30 a supply-chain management modules operatively connected to the  
web server (26) for implementing and managing the E-commerce transactions  
executed through the first ad displayed on the browser (12).

35                   15.     The E-commerce system (10) of claim 14, wherein the supply-chain  
20 management module includes a database of revenue values associated with the ads  
40 stored in the database; and

wherein the dynamic targeting means (34) includes:

45                   means, responsive to the revenue value database, for selecting  
25 the first ad from the ad database to be displayed to the user, wherein the first ad  
corresponds to user characteristics with maximum revenue realization potential.



5           16.    The E-commerce system (10) of claim 14, wherein the supply-chain  
management module includes:

                  a real-time inventory management module mirroring supplier  
10           systems providing the product for the E-commerce transaction.

5           16.    The E-commerce system (10) of claim 14, wherein the supply-chain  
15           management module includes:

                  a product source database; and  
                  means for tracking the products purchased in the E-commerce  
20           transaction to follow product sourcing configurations for tiered supply pricing.

25           17.    The E-commerce system (10) of claim 14, wherein the supply-chain  
management module includes:

                  a modular data structure for storing data corresponding to different E-  
15           commerce partners in a supply chain; and  
30           means for revising the modular data structure to selectively replace E-  
commerce partners.

35           18.    The E-commerce system (10) of claim 14, wherein the supply-chain  
20           management module includes:

                  means for dynamically generated pricing for offers provided through  
40           the first ad displayed to the user.

45           19.    The E-commerce system (10) of claim 1, further comprising:  
25           reporting means to track and report financial performance of the ads  
in the ad database involved in the E-commerce transaction.

5                   20.    The E-commerce system (10) of claim 19, wherein the reporting  
means includes:

                  an extranet available to partners of the E-commerce system (10).

10  
5                   21.    The E-commerce system (10) of claim 1, further comprising:  
                  a database of offers forming an outgoing portfolio, wherein the web  
15                   server displays only ads corresponding to offers in the outgoing portfolio; and  
                  means for dynamically, in real-time, evaluating the offers in the offer  
20                   database, and for removing offers from the outgoing portfolio of offers failing to  
10                   meet a predetermined criteria.

25                   22.    The E-commerce system (10) of claim 21, wherein the predetermined  
criteria includes a predetermined minimum threshold of profitability of offers.

15                   23.    The E-commerce system (10) of claim 21, wherein the predetermined  
30                   criteria includes a threshold of available stock of products associated with offers.

35                   24.    The E-commerce system (10) of claim 1, further comprising:  
                  a database of prices associated with products corresponding to the ads  
20                   in the ad database; and  
                  means for dynamically adjusting the pricing of products over time  
40                   and for learning consumer pricing sensitivity to such price adjustments.

45                   25.    The E-commerce system (10) of claim 1, further comprising:  
25                   a payment sub-system for effecting payment of the completed E-  
commerce transaction.

5                   26.    The E-commerce system (10) of claim 25, wherein the payment sub-  
system includes:

                  means for dynamically calculating respectively monetary values  
10           accrued to each party in a supply chain associated with the completed E-commerce  
5           transaction.

15                   27.    The E-commerce system (10) of claim 25, wherein the monetary  
values may be in multiple currencies.

20                   28.    The E-commerce system (10) of claim 25, wherein the payment sub-  
system includes:

                  automated disbursement means for distributing the respective  
25           monetary values to each party in the supply chain.

15                   29.    The E-commerce system (10) of claim 27, wherein the payment sub-  
system includes:

                  automated disbursement means for collating monetary values on an  
individual transaction basis for each product associated with the completed E-  
35           commerce transaction, and for distributing the respective monetary values to each  
20           party in the supply chain on a timely basis for delivery to each party in the E-  
commerce transaction.

40                   30.    The E-commerce system (10) of claim 29, wherein the respective  
monetary values include micropayments.

5

31. The E-commerce system (10) of claim 25, wherein the payment sub-system includes:

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revenue projection means for determining anticipated revenue of the E-commerce transaction on a real-time basis.

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32. The E-commerce system (10) of claim 25, wherein the payment sub-system includes:

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revenue determining means for determining accruals on settlement of the completed E-commerce transaction.

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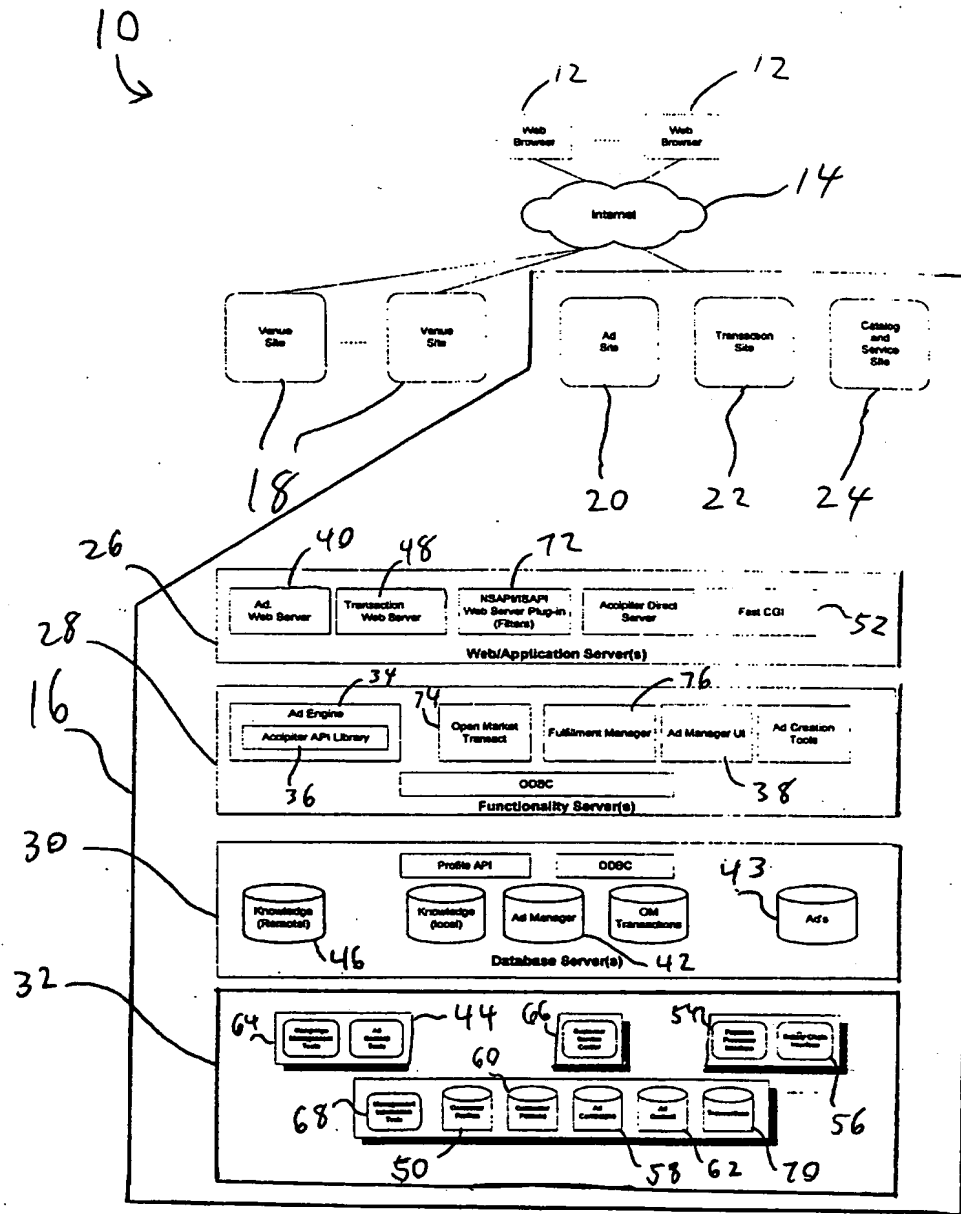


FIG. 1

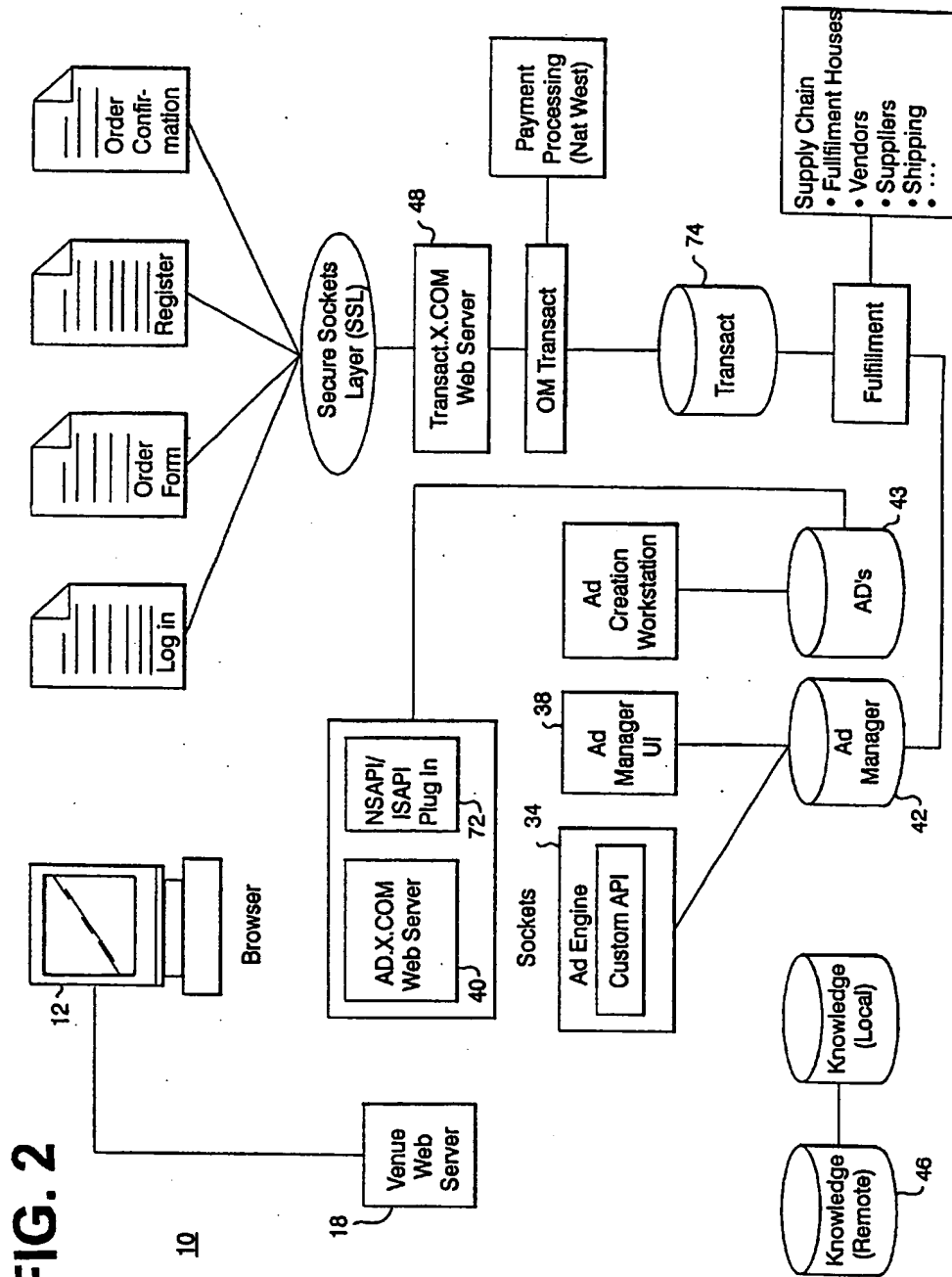
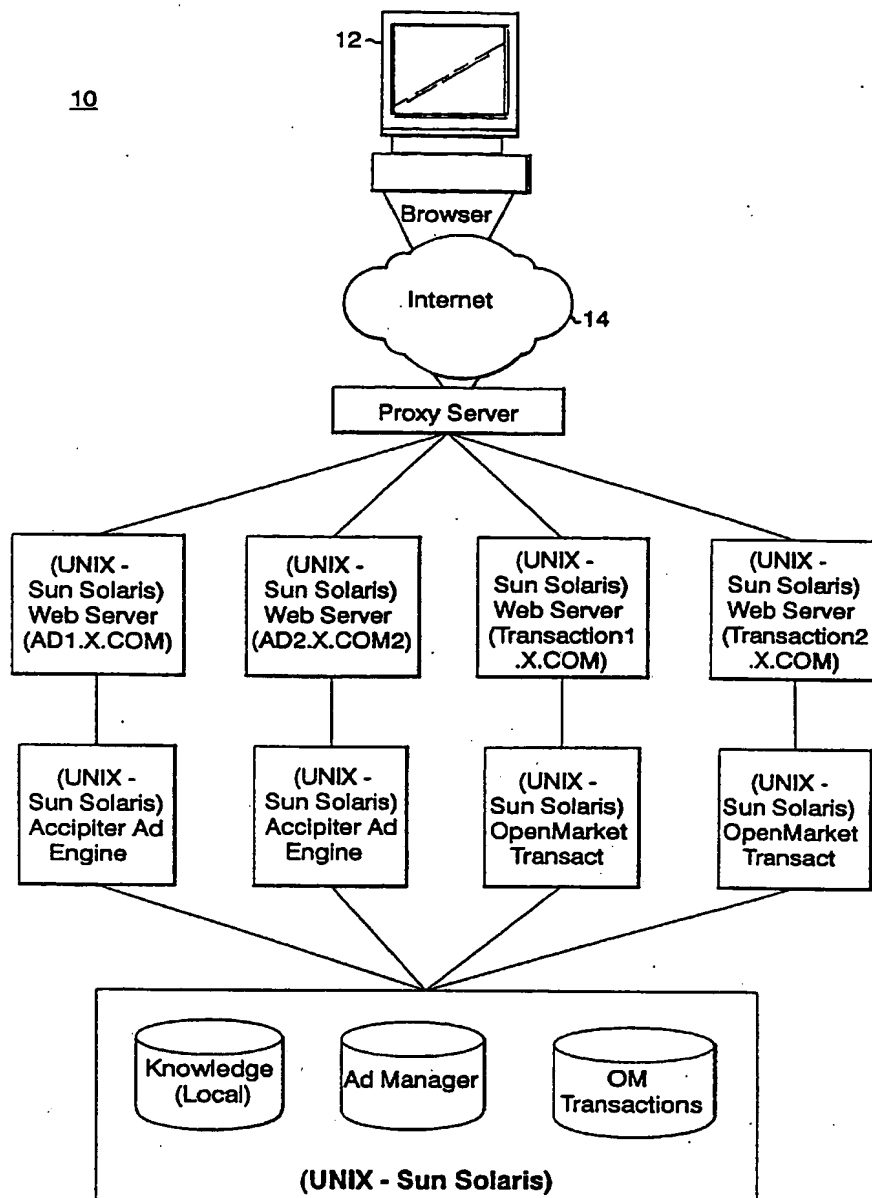
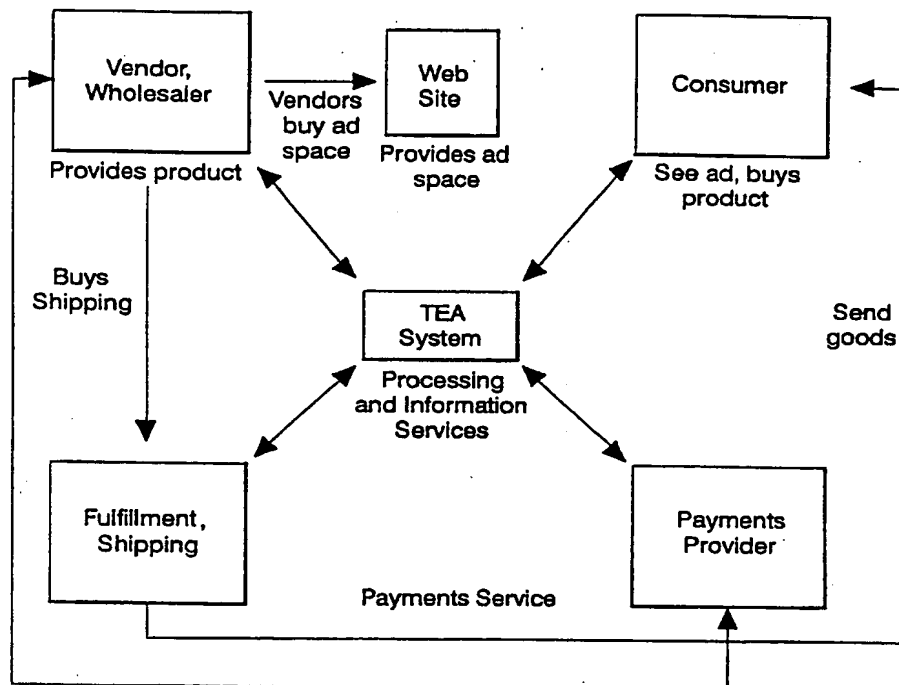


FIG. 2

**FIG. 3**

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SUBSTITUTE SHEET (RULE 26)

**FIG. 4**



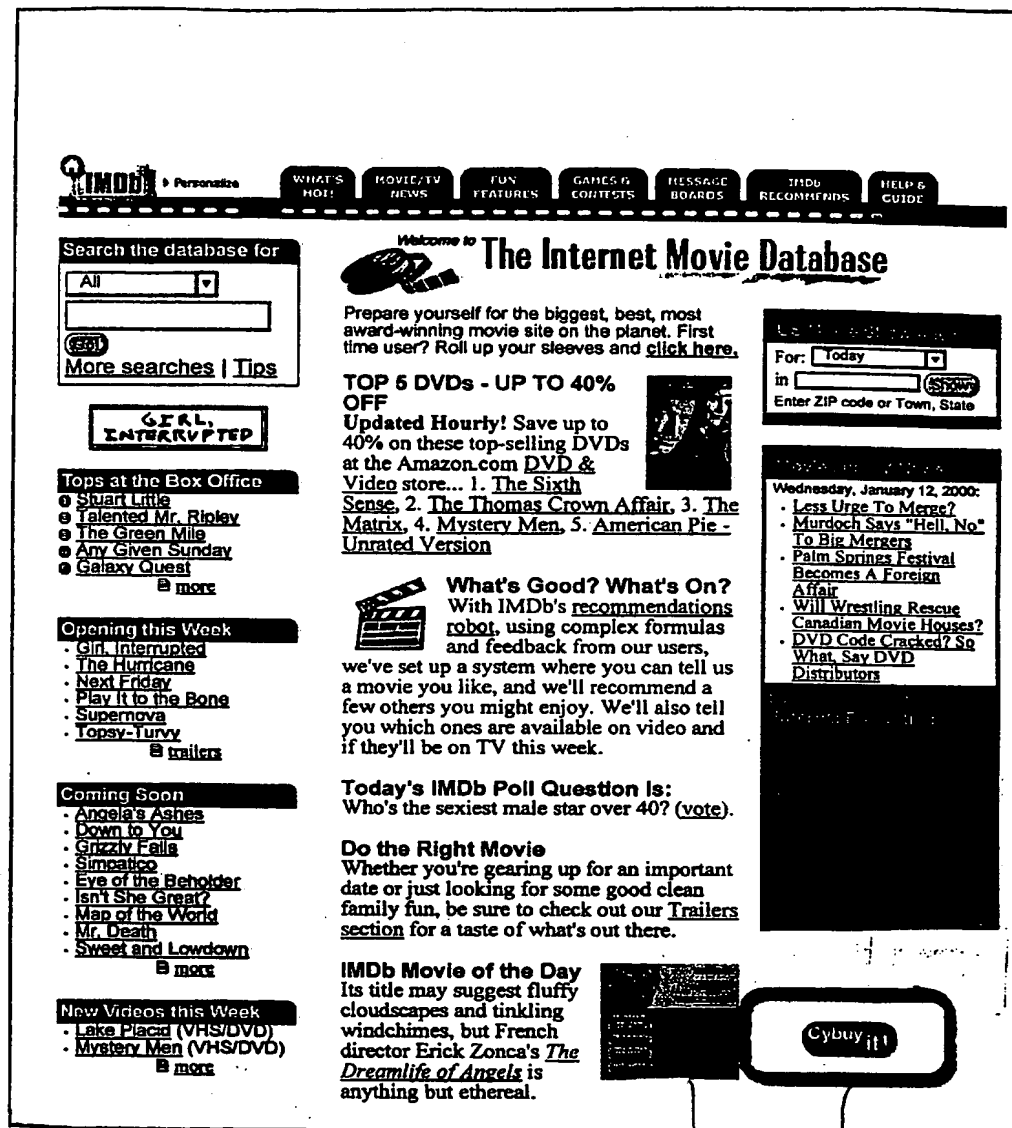


FIG. 5

84

86

88

**IMDb** Personalize

WHAT'S HOT! MOVIE/TV NEWS FUN FEATURES GAMES & CONTESTS MESSAGE BOARDS IMDb RECOMMENDS HELP & GUIDE

Search the database for

All

More searches | Tips

**GEAR, INTERRUPTED**

**Tops at the Box Office**

- Stuart Little
- Talented Mr. Ripley
- The Green Mile
- Any Given Sunday
- Galaxy Quest

more

**Opening this Week**

- Girl, Interrupted
- The Hurricane
- Next Friday
- Play It to the Bone
- Supernova
- Topsy-Turvy

trailers

**Coming Soon**

- Angela's Ashes
- Down to You
- Grizzly Falls
- Simpatico
- Eye of the Beholder
- Isn't She Great?
- Map of the World
- Mr. Death
- Sweet and Lowdown

more

**New Videos this Week**

- Lake Placid (VHS/DVD)
- Mystery Men (VHS/DVD)

more

Welcome to **The Internet Movie Database**

Prepare yourself for the biggest, best, most award-winning movie site on the planet. First time user? Roll up your sleeves and [click here](#).

**TOP 5 DVDs - UP TO 40% OFF**

Updated Hourly! Save up to 40% on these top-selling DVDs at the Amazon.com DVD & Video store... 1. [The Sixth Sense](#), 2. [The Thomas Crown Affair](#), 3. [The Matrix](#), 4. [Mystery Men](#), 5. [American Pie - Unrated Version](#)

**What's Good? What's On?**

With IMDb's [recommendations robot](#), using complex formulas and feedback from our users, we've set up a system where you can tell us a movie you like, and we'll recommend a few others you might enjoy. We'll also tell you which ones are available on video and if they'll be on TV this week.

**Today's IMDb Poll Question is:**

Who's the sexiest male star over 40? ([vote](#)).

**Do the Right Movie**

Whether you're gearing up for an important date or just looking for some good clean family fun, be sure to check out our [Trailers section](#) for a taste of what's out there.

**IMDb Movie of the Day**

Its title may suggest fluffy cloudscares and tinkling windchimes, but French director Erick Zonca's [The Dreamlife of Angels](#) is anything but ethereal.

For: Today

in

Enter ZIP code or Town, State

Wednesday, January 12, 2000:

- [Less Urges To Merge?](#)
- [Murdoch Says "Hell, No" To Big Mergers](#)
- [Palm Springs Festival Becomes A Foreign Affair](#)
- [Will Wrestling Rescue Canadian Movie Houses?](#)
- [DVD Code Cracked? So What, Say DVD Distributors](#)

Wednesday, January 12, 2000:

- [Howard Stern \(46\)](#)
- [Oliver Platt \(40\)](#)
- [Wayne Wang \(51\)](#)
- [Kirstie Alley \(49\)](#)

more birthdays

FIG. 6

**Cybuy takes the hassle out of Online Shopping.**

Choose Version... Mulan (VHS) [120 min / color]

Choose Shipping \$16.99

your logo here it!

Disney's new classic fairytale about an Asian Princess and her adventures.

at the Amazon.com DVD & Video store... 1. The Sixth Sense, 2. The Thomas Crown Affair, 3. The Matrix, 4. Mystery Men, 5. American Pie - Unrated Version

**Tops at the Box Office**

- Stuart Little
- Talented Mr. Ripley
- The Green Mile
- Any Given Sunday
- Galaxy Quest

[more](#)

**Opening this Week**

- Girl Interrupted
- The Hurricane
- Next Friday
- Play It to the Bone
- Supernova
- Tootsy-Turvy

[more](#)

**Coming Soon**

- Angela's Ashes
- Down to You
- Grizzly Falls
- Simone
- Eye of the Beholder
- Isn't She Great?
- Map of the World
- Mr. Death
- Sweet and Lowdown

[more](#)

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[more](#)

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- Palm Springs Festival Becomes A Foreign Affair
- Will Wrestling Rescue Canadian Movie Houses?
- DVD Code Cracked? So What, Say DVD Distributors

Wednesday, January 12, 2000:

- Howard Stern (46)
- Oliver Platt (40)
- Wayne Wang (31)
- Kirstie Alley (49)

[more birthdays](#)

FIG. 7

102

your logo here

*I'm a registered Cybuy customer*  
**Use My Profile**

Name

Address

City/Town

State/Province

Postal Code

Country

Phone Number

E-Mail Address

Click here if you'd like us to ship your order to a different address!

**Ship to a different address**

Action	Quantity	Product Description	Delivery	Unit Price	Total Price
<a href="#">delete item</a>	<input type="text" value="1"/>	Blair Witch Project: Blair Witch Project (VHS)	Standard	\$15.99	\$15.99

Payment method

Credit card number

Expiration date Month  Year

Your Payment information will be secure  
Click here for [Security and Privacy details](#)

[Cancel Order](#)

Merchandise Subtotal \$15.99  
Shipping FREE!  
Sales tax —  
Grand Total \$18.99

[Recalculate Price](#) [Cybuy.it!](#)

customer service terms

Powered by **Cybuy**

FIG. 8

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SUBSTITUTE SHEET (RULE 26)

**Netscape: Smart Receipt**

### Your Cybuy Receipt

<b>Order No.</b> 10023	<b>Merchant merchant name</b>	<b>Order Date</b> 7/9/99
------------------------	-------------------------------	--------------------------

<b>Bill to:</b> John Smith 114 5th Ave Apt. 7C New York, NY 10024 212-555-7464 jsmith@cybuy.com	<b>Ship to:</b> John Smith 114 5th Ave Apt. 7C New York, NY 10024 212-555-7464 jsmith@cybuy.com
-------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------

**Items ordered:**

Item	Quantity	Product Description	Unit Price	Total Price
	1	Premier case for Palm Organizer	\$110.00	\$110.00

Shipping method: DHL  
Will be charged to: Visa

For great products from this merchant, click here!

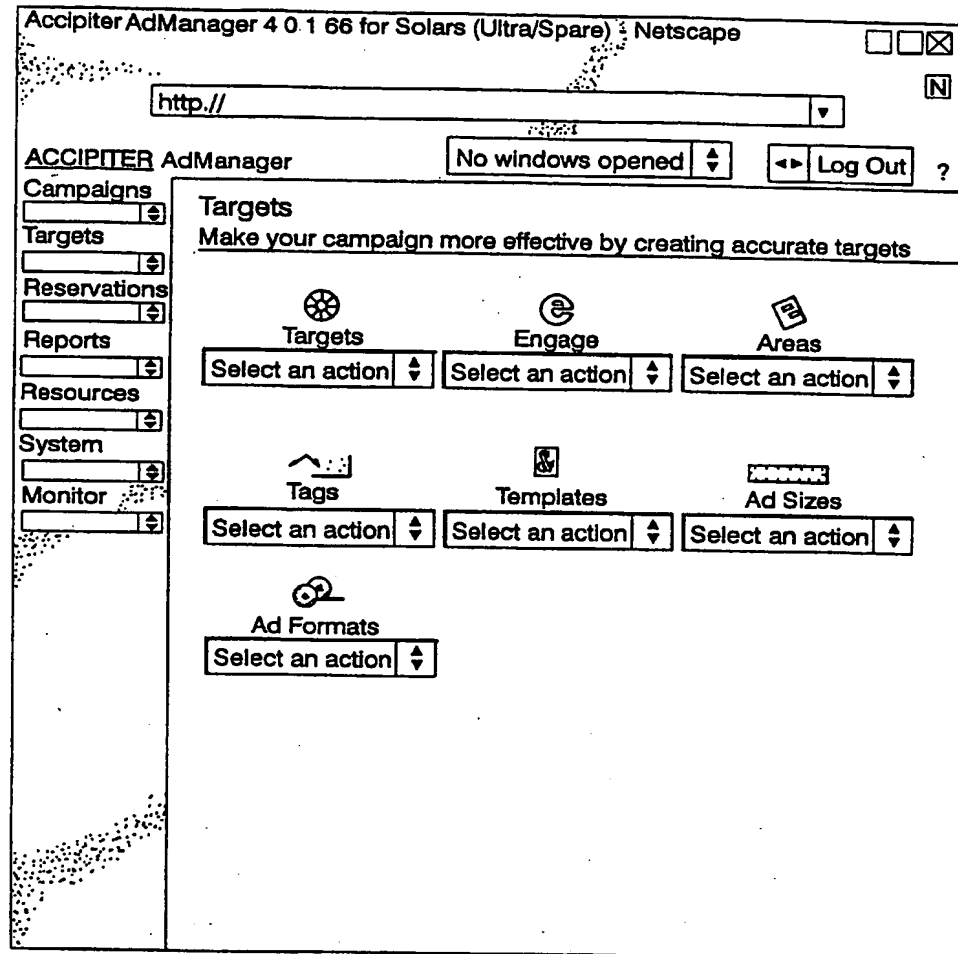
your logo here

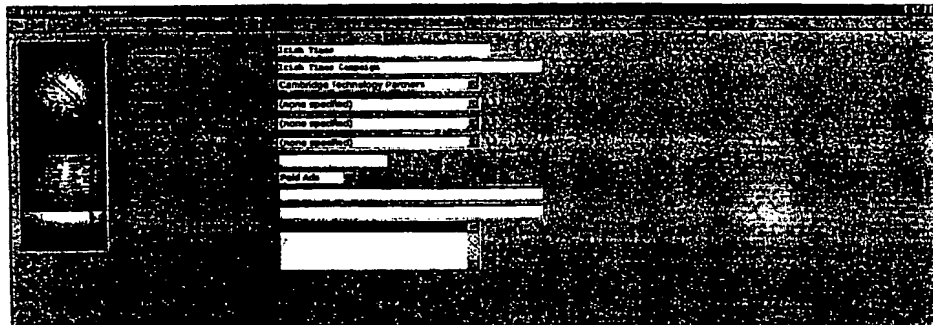
Merchandise Subtotal \$110.00 Shipping \$5.00 Sales tax \$0.00  Grand Total \$21.99	<input type="button" value="Done!"/>
-------------------------------------------------------------------------------------------------	--------------------------------------

[account history](#)  
[customer service](#)  
[terms](#)

Powered by **Cybuy**

FIG. 9

**FIG. 10**



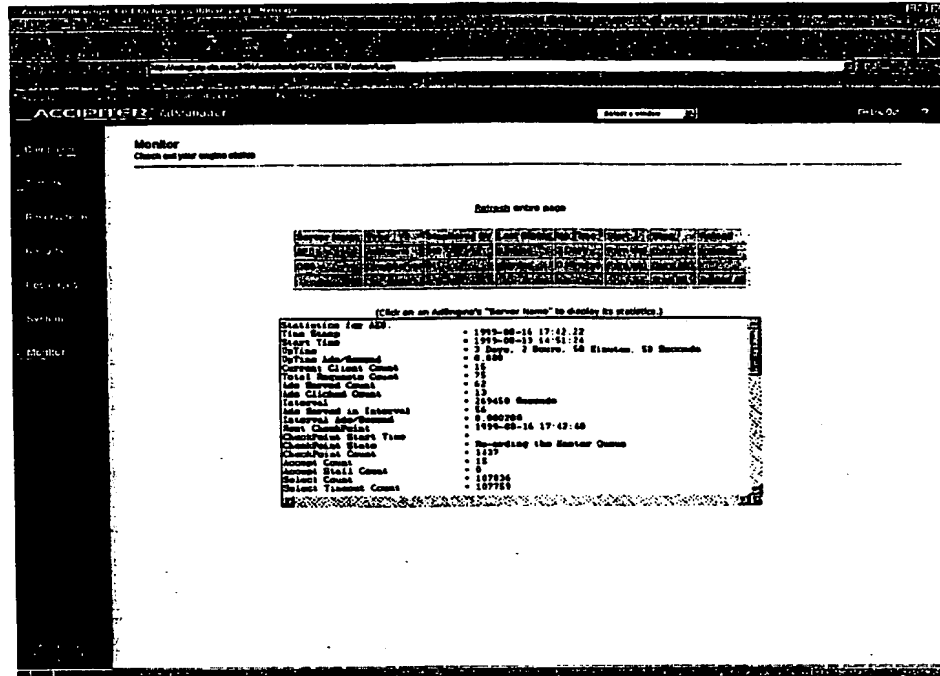


FIG. 12



## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/00965

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : G09F 27/00, G06F 17/30, G06F 17/60 US CL : 705/14 According to International Patent Classification (IPC) or to both national classification and IPC				
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 705/14 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched DIALOG Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WEST (USPAT. EP, JPO, WO AND DERWENT)				
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
Y	EP 0,8225,35 A2 (APTE et al) 04 JANUARY 1998, col. 6 L 1-55, col. 9 L 38-53, col. 10 L 41-57	1,2,4,5, 9-13, 19, 25		
Y	US 5,717,923 A (DEDRICK) 10 February 1998, col. 3 L 37-67, col. 9 L 25-57, Fig. 6a, 6b, 7a and 7b	1,2,4,5,9-13,19,25		
A	US 5,848,397 A (MARSH et al.) 08 December, 1998 Fig. 5, 8, col. 2 L 65- col. 5 L 44	1, 2, 4, 5, 9-13, 19, 25		
A	US 5,727,129 A (BARRETT et al.) 10 March 1998, col. 4 L 64- col. 6 L 26	1, 2, 4, 5, 9-13, 19, 25		
A	US 5,835,087 A (HERTZ et al.) 10 November, 1998, entire document	1,2,4,5,9-13,19,25		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex				
<table border="0"> <tr> <td>           * Special categories of cited documents            "A" documents defining the general state of the art which is not considered to be of particular relevance            "E" earlier document published on or after the international filing date            "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)            "O" document referring to an oral disclosure, use, exhibition or other means            "P" document published prior to the international filing date but later than the priority date claimed         </td> <td>           "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle of the invention            "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone            "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art            "Z" document member of the same patent family         </td> </tr> </table>			* Special categories of cited documents "A" documents defining the general state of the art which is not considered to be of particular relevance "E" earlier document published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle of the invention "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "Z" document member of the same patent family
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Date of the actual completion of the international search 17 MAY 2000		Date of mailing of the international search report 12 JUN 2000		
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer TOD SWANN Telephone No. (703) 308-7791 <i>James R. Matthews</i>		